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Open File Report 6114

Report of Activities, 2002 Resident Geologist Program

Kirkland Lake Regional Resident Geologist Report:

Kirkland Lake and Sudbury Districts

2003

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ONTARIO GEOLOGICAL SURVEY

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by

G. Meyer, M. Cosec, G.P.B. Grabowski, D.L. Guindon, S. Beauchamp and
E.C. Chaloux

2003

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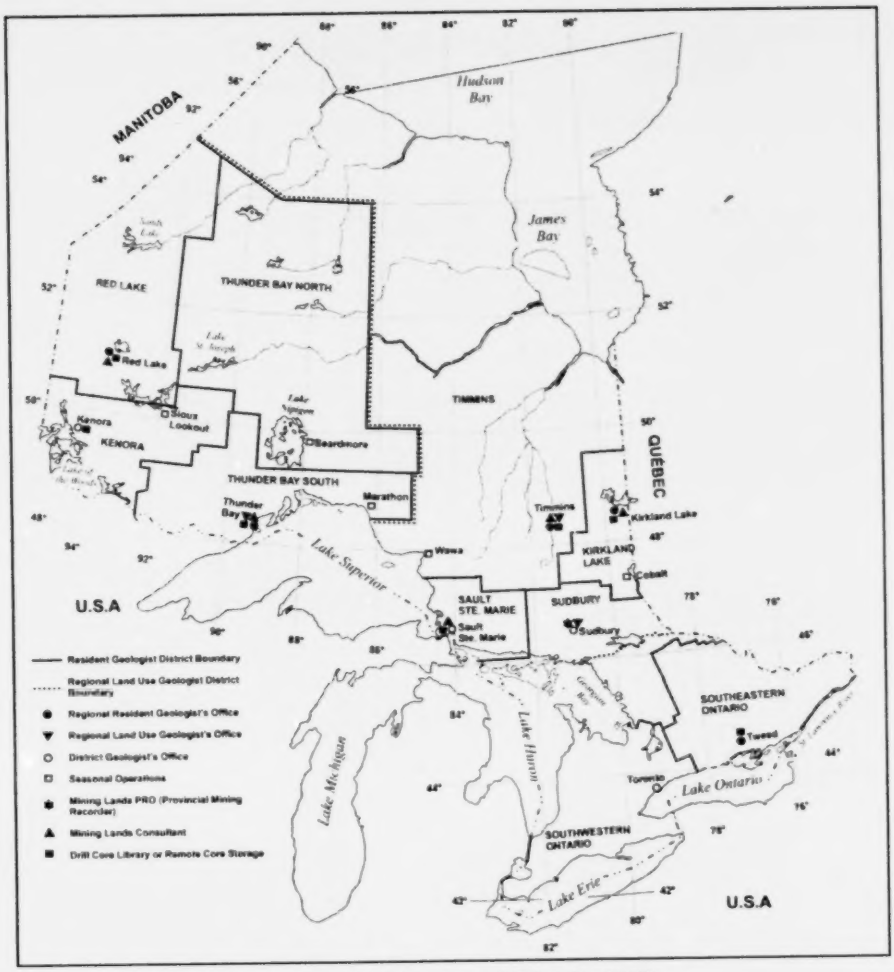

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ONTARIO GEOLOGICAL SURVEY

RESIDENT GEOLOGIST PROGRAM

REPORT OF ACTIVITIES - 2002

KIRKLAND LAKE REGIONAL RESIDENT GEOLOGIST REPORT

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Kirkland Lake Regional Resident Geologist (Kirkland Lake District)–2002

by

G. Meyer, G.P.B. Grabowski, D.L. Guindon and E.C. Chaloux

2003

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Kirkland Lake Regional Resident Geologist (Kirkland Lake District)–2002

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INTRODUCTION

The price of gold in 2002 ranged between a low of US$277.75 per ounce and a high of US$349.30 per ounce and the cumulative average was US$309.73 per ounce, a rise of US$38.71 per ounce from the previous year (www.kitco.com). The rise has contributed to increased exploration activity in the Kirkland Lake Resident Geologist district.

Total gold production in 2002 from all producers in the Kirkland Lake Regional Resident Geologist District (see "Mining and Milling Activity – Precious Metals" in this report and Tables 2 and 9) was 6 383 304 grams of gold or 205 228 ounces of gold. This represents an increase of 1.6% from 2001. Total historic gold production in the district was 41 215 160 ounces of gold recovered from 136 966 945 tons of ore plus 202 399 ounces of gold from 4 292 634 tons of tailings.

Two gold mines operated proximal to the Porcupine-Destor Deformation Zone and one along the Larder Lake Deformation Zone in the Kirkland Lake Regional Resident Geologist District during 2002. These were: the Holloway Mine, owned by Newmont Mining Corporation and Teddy Bear Valley Mines Limited; the Holt-McDermott Mine, owned by Barrick Gold Corporation; and Kirkland Lake Gold Inc.'s Kirkland Lake properties consisting of the former Macassa, Kirkland Lake, Teck Hughes, Lake Shore and Wright Hargreaves properties. Kirkland Lake Gold Inc. also recovered gold from tailings contained in the basin of the former Kirkland Lake. Mining and milling operations in the Kirkland Lake Resident Geologist District at the end of 2002 directly employed approximately 422 people.

Extender Minerals of Canada Ltd. operated two underground barite-mining operations in North Williams and Yarrow townships.

Figure 1 shows the locations of mining and milling activity in the Kirkland Lake Regional Resident Geologist District in 2002.

Several junior mining companies explored large mining claim holdings within the Timiskaming Structural Deformation Zone (TSDZ) for their diamond potential. Diamonds were recovered from lamprophyre and heterolithic breccia south of Cobalt.

In 2002, there were approximately 78 active exploration projects in the Kirkland Lake Regional Resident Geologist District (Tables 3 and 4).

At the end of 2002 there were 21 940 active mining claims in the Larder Lake Mining Division (see Table 1). Two hundred and thirty four (234) Assessment Work reports were incorporated into the Kirkland Lake Assessment File system (Table 3). These reports, approved for assessment credits, represent $3 839 275 in exploration expenditures. Sixty seven (67) records of publications were added to the library database (Table 6).

MINING AND MILLING ACTIVITY – PRECIOUS METALS

Barrick Gold Corporation – Holt-McDermott Mine

In 2002, Barrick Gold Corporation's Holt-McDermott Mine in Holloway Township mined and milled 471 491 t (519 730 tons) to produce 83 568 ounces of gold. The recovered grade was 5.513 g/t Au at a mill recovery rate of 94.6%. Ore reserves, at the end of December 31, 2002, in the proven category were 20 775 t grading 5.901 g/t Au or containing 3941ounces of gold. In the probable category, 747 220 t of ore grading 6.26 g/t Au or containing 150 388 ounces of gold. The combined ore reserves in the proven and probable categories were 767 995 t (846 570 tons) grading 6.25 g/t Au or containing 154 330 ounces of gold. In addition, indicated resources were 222 862 t (245 663 tons) grading 8.45 g/t Au or containing 60 546 ounces of gold. The inferred resources were 461 840 t (509 091 tons) grading 8.81 g/t Au or containing 130 815 ounces of gold.

Drifting and raising in 2002 amounted to 6853 m and 384 m, respectively. Underground diamond drilling totaled 2421.3 m exploration and 45 048.8 m definition drilling in approximately 475 holes. Surface exploration drilling totaled 11 506 m in 11 holes and 2 wedges.

Capital expenditures in 2002 were $10.5 million.

Planned development expenditures for 2003 is $7.391 million and an additional $1.575 million for diamond drilling.

At year-end, the company employed 200 people (C. Todd, Barrick Gold Corporation, personal communication, 2003 and www.barrick.com).

Canmine Resources Corporation

Canmine Resources Corporation reported completion of construction and modification of the Canmine refinery near Cobalt, Ontario and processing ore began in late March 2002. By late April, 10 of the 14 major units of the plant were into operation. In mid-June the company announced it was restructuring the company. The company was granted protection under the *Companies' Creditors Arrangement Act* and received a further extension until February 28, 2003 (News Release, Canmine Resources Corporation, March 11, April 3, April 25, June 18, August 2, and November 26, 2002 and http://www.canmine.com/).

Kirkland Lake Gold Inc.

Foxpoint Resources Ltd., later renamed Kirkland Lake Gold Inc., began processing tailings from the Kirkland Lake basin on May 14, 2002. The mill began processing rock from the Lake Shore property at a rate of 500 tons per day. Production totaled 12 350 ounces of gold from 22 247.5 tons of rock and 8 898 ounces of gold from 64 845 tons of tailings. Reserves at year end were calculated as follows: proven – 432 400 tons at 0.41 ounce Au per ton (177 284 ounces) and probable – 368 400 tons grading 0.49 ounce Au per ton (180 516 ounces). Resources were determined to be: measured – 922 700 tons at 0.36 ounce Au per ton (332 172 ounces), indicated – 2 898 700 tons at 0.27 ounce Au per ton (782 649 ounces) and inferred – 459 500 tons grading 0.27 ounce Au per ton (124 065 ounces).

During 2002, Kirkland Lake Gold Inc. completed 405 feet of drifting and 27 feet of raising. Underground drilling totaled 12 305 feet of exploration and 46 361 feet of definition drilling in 208 holes. Surface drilling totalled 99 739 feet in 396 holes with about 60% being definition drilling.

Capital expenditures for 2002 totaled $5.25 million. Planned development and drilling expenditures for 2003 are set at $3.0 million.

The mine employed 62 at the end of the year (http://www.klgold.com/index.html, M. Sutton, Kirkland Lake Gold Inc., personal communication, 2003).

Newmont Mining Corporation and Teddy Bear Valley Mines Limited – Holloway Mine

In 2002, the Newmont Mining Corporation and Teddy Bear Valley Mines Limited Holloway Mine in Holloway Township, mined 571 227 t (629 670 tons) of ore. The ore was custom milled at the Barrick Gold Corporation Holt-McDermott mill and produced 99 412 ounces of gold in 2002 at a recovered grade of 0.158 ounce per ton Au at a mill recovery rate of 93.11%.

Proven ore reserves at the mine, on December 31, 2001, were 960 006 t (1 058 225 tons) grading 6.31 g/t Au or containing 194 713 ounces of gold. Probable reserves were 1 881 179 t (2 073 645 tons) grading 6.57 g/t Au or containing 398 140 ounces of gold. Resource estimates at the end of 2002 were defined as: indicated – 563 457 t grading 5.47 g/t or 99 377 ounces of gold and inferred – 706 999 t at 7.69 g/t or 174 571 ounces of gold.

During 2002, the joint venture partners completed 3714 m of drifting and 309 m of raises. Underground definition diamond drilling totaled 24 598 m in 564 holes.

Capital expenditures for the year amounted to $2.282 million. The proposed exploration drilling budget for 2003 is $420 000 and they plan underground development totaling 1200 m in drifting and raising.

At year-end, the mine employed 135 people (http://www.newmont.com/en/, R.J. Labine, Newmont Mining Corporation, personal communication, 2003).

PolyMet Resources Inc.

The Polymet Resources Inc. assay laboratory, bulk-sampler, processing plant and furnace operations became fully operational in 2002. The company sent shipments of low-grade silver-gold slag waste / mill clean-up concentrates to Noranda's Horne Smelter until June, when a labour dispute at the Horne smelter curtailed further shipments. The plant was put on care and maintenance until December. During this period, extensive repairs were conducted on the ball mill, bullion furnace, drying plates and secondary crushing circuit. In December, shipments were resumed but diverted to Noranda's Brunswick Smelter (G. Chitaroni, personal communication, 2003).

SMC (Canada) Ltd. – McAlpine Mill

SMC (Canada) Ltd., a subsidiary of Sabin Metal Corporation of East Hampton NY, operates the McAlpine mill in Cobalt, Ontario (formerly Agnico Eagle-Mines Limited's Penn mill purchased in 1998). The mill, consisting of a 200-ton per day gravity-flotation circuit, processed material from waste electronic and microelectronic gear, jewelry, photographic and x-ray film, slag, crucibles, refractory brick and other products containing precious metals.

MINING ACTIVITY – INDUSTRIAL MINERALS

Extender Minerals of Canada Ltd.

Extender Minerals of Canada Ltd. produced approximately 12 000 t barite in 2002. The new mine in North Williams Township produced most of the ore, and only limited ore came from the Yarrow barite mine, in Yarrow Township. All ore was milled at the Powell Township mill. Mining at the North Williams operation is via a decline ramp. The ore at this mine is exceptionally pure, grading 99% $BaSO_4$. In 2003, Extender Minerals plans to obtain most mill feed from the North Williams Mine. Ore reserves at the North Williams Mine exceed four years and there are some reserves remaining at the Yarrow Mine. The company employs 25 people on a year-round basis and the work force generally increases in summer (R. Hill, Extender Minerals of Canada Ltd., personal communication, 2003).

Miller Minerals Limited – Bucke Quarry

In 2002, the Miller Minerals Bucke lime and limestone production facility located on Ramsey Road, Haileybury, increased production levels to near 60 000 t of limestone flux material, agricultural limestone, limestone aggregates, quicklime and other special lime products for environmental applications. The company continued to supply Enviro Lime to the Kam Kotia reclamation project near Timmins. More than 12 000 t have been delivered to this project to date. This portion of the Kam Kotia project is expected to be completed in 2003. About 28 000 t of limestone in various sizes was used for construction of the causeway for the temporary bridge over the Montreal River in Latchford following the collapse of the Sgt. Aubrey Cousins Bridge in January, 2003. The company continues to monitor all private and government markets for potential new sales of lime and limestone products (T. Overton, Miller Minerals, personal communication, 2003).

ADVANCED EXPLORATION

Apollo Gold Corporation – Black Fox Property

Apollo Gold Corporation purchased the Glimmer Mine from Exall Resources Limited and Glimmer Resources Inc. in September 2002. The property was purchased for $3.15 million, 2 million shares of Apollo and an additional $3.0 million when the mine achieves a commercial production average of 500 t per day over a 30 day period. Apollo plans to begin a 30 000 m drill program in 2003 (Apollo Gold Corporation Press Release January 17, 2003, http://www.apollogold.com/).

EXPLORATION AND PROPERTY ACQUISITIONS

Acrex Ventures Ltd. – Michaud Township Property

Acrex Ventures Limited and joint venture partner Moneta Porcupine Mines Limited completed 9 diamond drill holes, totaling 3038 m on the Michaud Township gold property. Visible gold and significant gold assays were encountered in five mineralized zones occurring within the Porcupine-Destor Fault Zone (PDFZ). The Acrex property covers approximately 9 km of strike length along this key mineralized horizon. Drilling to date has demonstrated the existence of a gold-bearing system over a strike length of 3 km and to a vertical depth of 950 m (Acrex Ventures Ltd. Press Releases and http://www.acrexventures.com).

Boulder Mining Corporation – WALP

Boulder Mining Corporation contracted Overburden Drilling Management Limited to complete a regularly spaced orientation traverse of fourteen reverse-circulation drill holes north of the interpreted axis of the Lake Abitibi Deformation Zone (LADZ). The results of this program confirmed that the source of the numerous gold-bearing float and pristine gold grains in the glacial material to the south of the LADZ most likely came from that horizon. Further till sampling below the LADZ horizon is planned for the early part of 2003 (Boulder Mining Corp. Press Releases and www.bouldermining.com).

Brigadier Gold Inc. – Benson Creek Property

Brigadier Gold Limited drilled three holes on the Benson Creek gold property in Hearst Township. Diamond drill hole 02BC-01 was designed to test the down-hole grade variations in the zone. From 0.5 to 6.8 m, an altered section of green carbonate and syenite porphyry with several per cent pyrite returned assays ranging from 0.02 up to 0.25 ounce Au per ton over intervals of 0.2 m to 0.5 m. The hole returned a weighted average of 0.10 ounce Au per ton over 5.0 m. Brigadier subsequently optioned 229 claim units contiguous with the Benson Creek Property from Skead Holdings Ltd. of Sault Ste Marie. With the acquisition of these claims, the company now holds 290 claim units in the Larder Lake area (Brigadier Gold Ltd., Press Releases, June-August 2002 and http://www.brigadiergold.com).

Cabo Mining Limited – Lorrain Township Property

Cabo Mining Corp. recently recovered diamonds from drill core obtained from a drill program on its Cobalt area property. A 9.3 kg sample taken from diamond drill hole CC-14, processed by caustic fusion, contained a total of 95 diamonds including 4 macrodiamonds (greater than 0.5 mm in two dimensions). The lafgest diamond recovered was a 2.64 mg white, polytetrahedroid measuring 1.36 mm x 1.20 mm x 1.12 mm. The diamond-bearing sample was taken from a 4.15 m interval (between 32.45 m and 36.60 m) within a 61.0 m intersection of a lamprophyre and mafic, heterolithic breccia zone. Lamprophyre occurs in the heterolithic volcanic breccia as fragments, matrix and as distinct dykes and is best described as lamprophyric diatreme. Although petrographic studies of the Cobalt area heterolithic breccia are at a very early stage, the host rocks appear similar in appearance, age and geological setting to the diamond-bearing lamprophyres and heterolithic volcanic breccias currently being explored 400 km to the west, near Wawa. Outcrop in the area drilled includes several distinct phases of xenolith-bearing dykes, one of which contained three micro-diamond chips from limited surface sampling carried out and reported in 2000. A trenching, stripping and channel sampling program completed in the immediate area of the diamond discovery drill hole returned two micro diamonds. Results are pending on a 700 m diamond drilling program in the lamprophyre heterolithic diatreme breccia complex completed in November 2002. The company has acquired fourteen claims adjacent to its Cobalt area project from Prairie C, which includes the original diamond-bearing lamprophyre discovery in the area (Cabo Mining Corp., Press Releases and http://www.cabo.ca/).

Goldeye Explorations Limited – LaCarte Hydro Creek Property

Channel samples from a trenching program, carried out by Goldeye Explorations Limited in Tyrrell Township, assayed up to 14.4 g/t Au over 2 m and 10.3 g/t Au over 2.9 m. A second channel sample, 2 m to the east, returned an assay of 7.43 g/t Au over 3 m within a zone assaying 4.56 g/t Au over 7.3 m. A third channel sample, located 30 m south of the first channel sample, assayed 7.51 g/t Au over 0.9 m. The main zone of mineralization occurs within a 500 m long Spectral IP anomaly that correlates with the LaCarte zone (600 000 tons estimated 6 g/t Au) located 250 m to the east.

A grab sample from a trachyte/syenite zone 100 m to the north of the main trench returned 32 g/t Au in a screened metallic assay. A previously reported sample of highly altered ultramafic rock in the main trench, that previously returned 3.9 g/t Au with fire assay, yielded 6.58 g/t Au using the screened metallic assay method. Goldeye plans to re-assay the better sections of the channel samples with screened metallics to determine if coarse-grained gold has been missed in the assays received to date. Additional trenching and drilling of high priority targets and extracting a large sample to determine precise grade estimates of near surface mineralization in the Goldeye Shear Zone are planned (Goldeye Explorations Ltd. Press Releases and http://www.pathcom.com/~goldeye/).

JML Resources Ltd. – Marten River Property

JML Resources Ltd. located five priority target areas within its 3600 km^2 Marten River project area. The targets were defined by more than 1800 till samples and a high-resolution heliborne magnetic survey, covering a total of 3972 line-km. Each priority target area contained circular magnetic anomalies associated with kimberlite indicator mineral dispersion trains. Seven diamond-drill holes totalling 700 m were sunk and thin section analysis of selected core samples was completed. Ground truthing of about 50 drill targets was completed in preparation for the 2003 exploration program (JML Resources Ltd. Press Releases and http://www.jmlresources.com).

Moneta Porcupine Mines Inc. – Golden Highway Project

Moneta Porcupine Mines Inc. deepened 3 previously drilled holes with a 350 m drill program. Significant results were received from hole MI-91-148. Two zones were identified: an upper zone averaging 1.24 g/t Au over 15.3 m and a lower zone that returned 2.28 g/t Au over 2.0 m. Grid rehabilitation and an Induced Polarization (IP) orientation survey employing innovative methodologies developed by Insight Geophysics, was also done. These technologies provide significantly greater resolution and to far greater depths than any previous IP technology applied to this section of the Porcupine-Destor Fault Zone. A winter diamond drilling program is planned for a

minimum of 3000 m to test up to 9 targets, prioritized according to geological setting and depth potential. Ground geophysical surveys will also be undertaken in areas with lesser data density. Geophysical and geological targets have been identified from a detailed review of Moneta's extensive data base and drill core library. All targets are in favourable geological settings, characterized by the presence of gold mineralization, structure, alteration, and host rock lithologies (Moneta Porcupine Mines Inc. Press Releases and http://www.monetaporcupine.com).

Pelangio Mines Inc. – STAZ Property

Pelangio Mines Inc. diamond-drilled three holes in 2002 on the STAZ (SToughton Alteration Zone) Joint Venture property under option to Harte Resources and a private company (Hemlo North Shore) held jointly with Newmont Canada Limited. The STAZ Property is a gold exploration project located in Stoughton and Marriott townships approximately 14 km east of Newmont Canada Ltd.'s Holloway Mine and Barrick Gold Corp's Holt-McDermott Mine.

The largest hanging-wall structure consisted of a broad zone of alteration which assayed 0.79 g/t Au over 23.25 m, including a higher grade zone that assayed 9.75 g/t Au over 0.83 m. Gold mineralization within the STAZ carried over a broad interval as well; this interval assayed 0.77 g/t Au over 26 m (including an interval grading 1.35 g/t Au over 11 m). The best assay from the STAZ was 5.21 g/t Au over 0.85 m.

Hole PR-02-03 was drilled to test the extent of gold mineralization intersected in the STAZ between previously drilled Newmont holes ST98-8 and ST98-18. Hole PR-02-03 was collared approximately 300 m west of hole ST-98-8 and 100 m east of hole ST98-18. The best gold mineralization intersected in this hole is from a hanging-wall system above the STAZ which assayed 2.36 g/t Au over 1 m (Pelangio Mines Inc. Press Releases and http://www.pelangio.com/).

Queenston Mining Inc. – Lake Abitibi

Queenston Mining Inc. completed ten diamond drill holes totaling 3635m from a barge on Lake Abitibi. These holes tested a variety of geophysical targets on their 854 claim (13 830 ha) Lake Abitibi property in an attempt to determine which interpreted geological structures are the source of gold occurring in down-ice glacial sediments. Drilling intersected favourable lithologies (pillowed basalts, komatiitic basalt, interflow sediments, porphyry), alteration (both calcitic and ankeritic carbonatization, silicification, quartz veining, sericite), accessory mineralization (pyrite, pyrrhotite, chalcopyrite, sphalerite) and deformation (shear zones, talc-chlorite schists, and a 28.3 m wide fault zone) but failed to intersect any significant gold mineralization. The drill program results have enhanced the property by providing evidence of three altered structural corridors in favourable geology typical of many gold camps in Ontario. Now that a favourable geological environment for gold mineralization has been confirmed, further work along the newly identified structural zones is warranted. Additional geophysics and soil geochemical surveys are required prior to planning a second phase of diamond drilling in 2003 (Queenston Mining Inc. Press Releases and http://www.queenston.ca/).

Queenston Mining Inc. – Kirkland Lake Properties

Queenston Mining Inc. aquired the outstanding 50% interest of Newmont Capital Limited in the Kirkland Lake joint venture in 2002. As a result of the transaction, Queenston will own a 100% interest in 713 mineral claims covering an area of 11 500 ha (116 km²). The property includes five gold deposits with a combined resource of 1.5 million ounces, an office-warehouse and a former mill-tailings complex. The reported mineral inventory includes measured and indicated resources of 4 134 453 t averaging 5.6 g/t Au and inferred resources of 4 474 568 t averaging 5.3 g/t Au.

A 22 hole, 12 000 m diamond drilling program was begun to test 10 areas in Lebel and Gauthier townships, including the Anoki Deep, 180 Splay, Biroco and Esker gold zones. The program discovered a new gold zone referred to as the Anoki South Zone (ASZ). This zone lies 250 m south of and parallel to the Anoki deposit. The ASZ represents a 20 m thick, gold-bearing unit of altered inter-flow sediments and mafic volcanic flows that are

pyritized, silicified, carbonatized and contain trace amounts of sphalerite and chalcopyrite. The lower 5 m of this unit contains elevated levels of gold mineralization adjacent to a shear zone. Assays as high as 89.1 g/t Au over 2.3 m were encountered on the Anoki South zone (Queenston Mining Inc., Press Releases and www.queenston.ca).

Royal Victoria Minerals Ltd. – Golden Reward Project

Joint venture partners Royal Victoria Minerals Ltd. and St. Andrew Goldfields Ltd. began a high-resolution airborne magnetic survey, flown by Quantec Geoscience Inc., over an area in excess of 1100 square km, along the Porcupine-Destor Fault Zone. The survey, covering portions of 20 townships, includes Royal Victoria's "Golden Reward Project", located in Garrison, Michaud and Guibord townships. Royal Victoria has also staked an additional 10 240 ha of mining claims and acquired the Ross East property (560 ha) east of Matheson. The new acquisitions and previous mining claim holdings bring the total land position of the Golden Reward project to 23 500 ha (Royal Victoria Minerals Ltd. Press Releases and http://www.royalvictoriaminerals.com).

Sudbury Contact Mines Ltd. – Timiskaming Diamond Project

Sudbury Contact Mines Limited reactivated its diamond exploration program on properties in northeastern Ontario and northwestern Quebec. Previous exploration by Sudbury Contact discovered 4 kimberlites in the area, two of which were found to be diamondiferous. In addition to land acquisition, work in 2002 included airborne geophysical surveys, KIM and micro-diamond studies, diamond drilling and bulk sampling. Further sampling from kimberlite pipe 95-2 yielded a 40% increase in diamonds. A total of 78 diamonds has been recovered from a 2700 pound (1225 kg) sample.

Sudbury's 2003 diamond drill program includes eight drill holes to further define and determine the quality of kimberlite pipe 95-2. One of the planned NQ diamond drill holes will extend an existing hole from 500 feet (150 m) down to 1150 feet (350 m). The remaining holes, using HQ-sized drills (2.5 inches or 96 mm in diameter), are to define the volume of the pipe down to 800 feet (250 m). These eight holes are planned to total 6000 feet (1800 m). Other diamond drilling planned for 2003 will include testing two anomalies close to pipe 95-2, drilling two holes on pipe 96-1, and two holes on pipe MR-6, which has only been drilled 95 feet (29 m) into kimberlite. Priority targets identified by the 2002 airborne magnetic survey will be drilled later in the program. The total amount of drilling on the Timiskaming diamond project in 2003 is estimated at 13 000 feet (4000 m) at a planned cost of C$1.5 million (Sudbury Contact Mines Limited Press Releases and http://www.sudburycontact.com/).

Temex Resources Corp. – Juby Gold Property

Temex Resources Corp. purchased a 100% interest in the Juby Gold Project in Tyrrell Township from Inmet Mining Corp. A surface exploration program included structural and geological mapping and a 10 000 m diamond drill program, designed to define controls on the known gold mineralization within the Juby Main Zone to test the on-strike extension along the Tyrrell Shear Zone as well as numerous other priority exploration targets throughout the property. The Juby Main Zone, with an average grade of 4.12 g/t Au, has been outlined by 21 widely spaced drill holes (up to 200 m spacing), covering a strike length of 600 m, to a maximum vertical depth of 500 m and has an average true width of 3.5 m. The two drill programs completed by Temex have demonstrated the existence of a higher-grade core zone of gold mineralization within the eastern portion of the Juby Main Zone. The company is particularly encouraged by the continuity of this higher-grade core zone, which has now been established over a vertical extent of 100 m and a strike length of 100 m. It remains open at depth and to the east. Gold within the higher-grade core zone is hosted by highly altered and brecciated Timiskaming-aged felsic intrusions, and is directly associated with quartz flooding and minor chalcopyrite mineralization. The Juby Main Zone is enclosed by a very large gold-bearing envelope, up to 100 m in width, of highly altered Timiskaming metasediments and intrusive sills. These rocks have been subjected to multiple episodes of brecciation and intense hydrothermal alteration resulting in a mineral assemblage consisting of variable proportions of silica, albite, sericite, carbonate (both calcite and ferroan dolomite are present), fuchsite, chlorite, pyrite, and barite. The company is compiling all of the data from the recent field programs in order to re-assess the structural and stratigraphic controls on gold mineralization. This will be followed by a third phase of diamond drilling early in 2003. The drill program will focus on expanding the higher-

grade core zone on the eastern margin of the Juby Main Zone (Temex Resources Corp. Press Releases and www.temexcorp.com).

Temex Resources Corp. – Wilson Lake Diamond Project

Temex Resources Corp. completed a Mobile Metal Ion (MMI) geochemical sampling program over a total of 62 high priority targets distributed across the company's Wilson Lake property, 15 km south of Temagami. These targets were previously identified using kimberlite indicator mineral (KIM) distribution and geochemistry, magnetic anomalies, and topographic features. Based on the MMI geochemical results, Temex completed 15 (594 m) diamond drill holes on priority kimberlite targets (Temex Resources Corp. Press Releases and www.temexcorp.com).

Tom Explorations Inc. – Lalonde Property

Tom Exploration Inc. completed 2000 feet of the 10 000 foot drilling program on the southeastern grid area (consisting of the "C", "D", "E" and "I" Zones) of the Lalonde Property, which consists of 143 unpatented mining claims located in Munro Township. One of the geophysical IP targets drilled intersected significant alteration and silicification over a 100 m core length. Sulphide mineralization has been observed over this length.

The property has been divided into three distinct areas. The Southeastern Grid Area, the Northwestern Grid Area and the Central Grid Area. Geophysical work has been completed on the Southeastern Grid Area and Northwestern Grid Area in the vicinity of the "J" Zone. The "J" Zone, which was stripped and mapped, revealed a mineralized zone with a length of approx. 180 m and an average width of 1.5 m. Samples taken averaged 7.28 g/t Au (0.257 oz/ton) with higher grades associated with higher concentrations of arsenopyrite needles and lower grades with fine pyrite and lesser amounts of fine arsenopyrite needles (Tom Explorations Inc. Press Releases and www.tomexploration.com).

Tres-Or Resources Ltd. – Temagami North Diamond Project

Tres-Or Resources Ltd. signed separate agreements with Rhonda Corporation and Rock Resources Inc. to help finance exploration work on its Temagami area diamond properties. An airborne magnetic survey, over a 70 000 ha area, was carried out in 2002. Diamond drilling of priority targets is planned in 2003 (Tres-Or Resources Ltd. Press Releases and www.tres-or.com).

Universal Exploration Corp. – Mattawapika Property

Universal Exploration Corp. carried out detailed ground magnetometer and Realsection Time Domain Induced Potential (TDIP) surveys and diamond drilled 6 holes, totaling 454 m, on its Mattawapika Property in Barr and Klock townships. Drill hole U-2002-1, which tested a Realsection TDIP target, intersected stringer type vein stockwork with best value of 3.02 g/t Au, 36.5 g/t Ag and 1.64% Zn over 0.4 m intervals. Drill hole U-2002-4 returned a 5.42% Zn value over 0.50 m (Universal Exploration Corp. Press Releases).

RESIDENT GEOLOGIST STAFF AND ACTIVITIES

At year-end, the staff consisted of G. Meyer, Regional Resident Geologist, G. Grabowski, District Geologist, D.L. Guindon, District Geologist and E. Chaloux, District Support Geologist. A. Olson, summer experience student, provided client service support and assistance to all staff. F. Boucher, out of the South Porcupine Resident Geologist office, provided backup throughout the year for the Resident Geologist's Office (RGO), Common Counter and Mining Lands Consultant.

G. Meyer gave an overview on mining and exploration activities in the Kirkland Lake District at the Northern Prospectors Association (NPA) annual meeting and was actively involved in the Discover Abitibi initiative.

G. Grabowski operated a field office in Cobalt for 4 days per month during the field season from May to October.

D. Guindon participated on a committee studying enhancements to the MDI database application.

E. Chaloux provided backup for the Mining Lands Consultant and attended several health and safety courses in order to become a certified member of the Joint Health and Safety Committee.

RGO staff spent time evaluating proposed Ontario Living Legacy sites using the Provincially Significant Mineral Potential method developed and revised in 2001 and 2002.

Kirkland Lake RGO staff contributed material for the NE Ontario's Regional Resident Geologist program display for the PDAC Convention in Toronto, the NE Ontario Mines and Minerals Symposium in Timmins and the OPA Symposium in Toronto. G. Meyer gave a presentation at the Ontario Exploration and Geoscience Symposium in Toronto.

Kirkland Lake RGO staff conducted 3 field trips in the Kirkland Lake area. Information sessions were provided for King George Public School students and for the public at Finlayson Point Provincial Park.

A total of 48 property visits were conducted by the Kirkland Lake Regional Resident Geologist staff in 2002 (see Table 5 and Figure 2).

Exploration activities in the Kirkland Lake Regional Resident Geologist district were up from the previous year. Please refer to Table 8 for a summary of the year 2002 activities.

PROPERTY EXAMINATIONS

Tom Exploration Inc. – Lalonde Option

Tom Exploration Inc. optioned the Lalonde property, consisting of 120 unpatented claims (1920 ha), in Munro Township. The property has nine gold-bearing zones, two of which were visited in summer 2002 by the Kirkland Lake Resident Geologist.

The "C" Zone, located at UTM NAD 17 558653E 5378572N, is a quartz stockwork in strongly carbonatized volcanic rock. The general trend of the quartz-vein stockwork is 062° and the dip of individual quartz veins ranges from shallow to steep. One quartz vein was observed to curve from near vertical to flat over a distance of 1 m. Individual veins are up to 50 cm thick. Subsequent diamond drilling determined a shallow dip for the stockwork to the southeast (Christian Dupont, personal communication, 2002). The vein system was exposed over a distance of about 30 m. Several years ago, Dave Lalonde extracted high-grade gold samples from quartz veins at the northeast end of the showing. A sample at this site assayed 1.77 ounce Au per ton and five additional samples along the quartz vein system ranged from 0.01 to 0.05 ounce gold per ton. Ankerite and calcite are associated with the hydrothermal alteration envelope in which both arsenopyrite and pyrite occur as disseminations and in blobs. Stratigraphic top is to the north based on pillow lava exposed adjacent to and southeast of the showing.

The "J" Zone is located at UTM NAD 83 17 554003E 5381834N. Up to 3 sub-parallel quartz veins pinch and swell with a general trend of 263°. The southern-most quartz vein is the widest and ranges in thickness up to 1.2 m. In addition, there are numerous small quartz veins. The overall width of the quartz-vein system is up to 3 m. At the eastern end of the exposed area the strike changes to 233°, apparently due to faulting and dragging on fault planes. Three old adits occur on the property as well as a possible shaft. The dip of the quartz veins is shallow (~ 30°) to the south. The vein system is exposed over a distance of 142 m. In the east, the quartz vein occurs in relatively unaltered mafic volcanic rock. Carbonatization increases to the west and so does the presence of arsenopyrite. At the west end of the main backhoe stripping a small pit was excavated and small quartz veins exposed. Since overburden stripping was not continuous in this area the continuity of the main quartz vein system is not known. At the east end of the stripped area the quartz vein system is covered by overburden. Five samples were assayed for gold. No gold was

detected in two of the samples and the other three assayed 0.08, 0.14 and 0.79 ounce Au per ton. The highest gold value also coincides with the highest arsenic content, suggesting a genetic relationship for the two elements.

North Williams Barite Mine, Tracey Lake

Extender Minerals of Canada Ltd. is mining a vein averaging 98-99% barite (Ba SO_4), in North Williams Township, south of Shining Tree at UTM NAD 83 17 498177E 5251377 (MDI 41P06NE00005). The vein has a minimum strike length of 250 m and pinches and swells reaching a maximum width of 4 m. The vein strikes 060° and the dip is near vertical. The host rock is dark gray to black Nipissing diabase, which has locally been hydrothermally altered to a dark red colour (probably hematization). Locally, the alteration is observed on both sides of the barite vein, is absent or is only developed on one side of the vein. Nipissing diabase inclusions in the barite vein exposed next to the hydro powerline crossing the property are all hematized.

Underground workings are accessed via a decline ramp. The 2nd level, approximately 125 feet below surface, was developed along the vein for 800 feet. In August 2002, drifting on the 3rd level, approximately 165 feet below surface, was completed and a spiral decline was close to the proposed elevation of the 4th level, 40 feet below the 3rd level.

Production was anticipated to reach 12 000 t in 2002. The ore is trucked 176 km to Extender Mineral's processing plant in Powell Township. To save on shipping costs, the company was planning to install a conveyor system at the mine and handpick the waste to up-grade the ore.

A second sub-parallel barite vein was recently discovered 400 m north of the mine on the hydro powerline. Overburden stripping has exposed the vein, but more work is required to determine its economic viability.

Ore reserves at the mine are rated as sufficient for a minimum of four years.

Extender Minerals has a work force of 25 people (3 at head office). In summer, employment increases and several students are hired (R. Hill and J. Bisson, Extender Minerals of Canada Ltd., personal communication, 2002 and 2003).

Walsh-Katrine Gold Prospect

The property, consisting of seven unpatented claim units (112 ha), is located in Katrine Township and is owned by Katrine Exploration and Development Inc. (60%) and VJP Exploration Inc. (40%). A shaft on the property is located at UTM NAD 83 17 601738E 5339813N.

The property was originally staked during the 1906-1907 Larder Lake gold rush and was subsequently restaked and explored several times. Walsh Katrine Gold Mines Limited sank a two-compartment shaft to a depth of 515 feet in 1924 with levels at 140', 250', 375', and 500' depths. In 1933, two ore samples, one 3000 pounds and the other 300 pounds, were shipped by Northern Metals Limited to the former Ontario Government Labs in Toronto for processing. The samples assayed 0.11 ounce Au per ton and 1.87 ounces Au per ton, respectively. One of the better results of diamond drilling by Canper Resources Inc. in 1986 was 47.29 g/t Au over 2.5 feet (www.katrineexploration.com).

The property is underlain by a syenite porphyry intrusion, which occupies about 65% of the property, with the remainder underlain by andesite. Knight (1920) of the Ontario Bureau of Mines visited the property while the Nipissing Mining Company worked the property. He noted the following: "The veins on which most of the work was done occur on a hill which rises some 35 feet above a shallow, weedy pond about an eighth of a mile in diameter. The rocks on the southwest face of this hill are impregnated with ankerite, or other iron bearing carbonate, which has caused them to become rusty. There are four main veins on this hill, striking about north 25° west magnetic, and dipping about vertically. These veins vary in width from a few inches to 4 to 5 feet or more. One of them has been

traced for 400 feet, and is probably longer. The veins consist mainly of quartz, and contain also iron pyrites, copper pyrites, specularite, galena and at times considerable ankerite or other similar carbonate".

Several sites were visited and sampled by OGS staff and are as follows:

A quartz vein system approximately 15 m west of the shaft, at UTM NAD 83 17 601724E 5339809N, is exposed for 14 m along strike and over a width of 5 m. The predominant quartz vein has an azimuth of 295°, dips 86° to the north and is up to 50 cm wide. Several small quartz veins up to 4 cm wide are diagonal to the main trend of the quartz vein system. Gray syenite, which makes up the bulk of the zone with quartz veins, is altered pink (perhaps due to hematite) when in contact with the quartz veins. Two samples from the quartz veins assayed 148 ppb and 9897 ppb Au.

Two selected quartz samples from the muck piles assayed 857 ppb Au and 1059 ppb.

A quartz vein in a trench at the lake shore, at UTM NAD 83 17 601681E 5339741N, strikes at 316° and dips vertically. Narrow, shallow dipping veins were also observed. The main vein has numerous brecciated pink syenite inclusions. A sample from the main quartz vein assayed 1498 ppb Au.

Approximately 400 m west-northwest of the Walsh Katrine Mine, at UTM NAD 83 17 601421E 5340010N, a quartz stringer stockwork zone in altered syenite is exposed in an old trench measuring 3 m x 4 m. The zone is approximately 1.5 m wide, strikes at approximately 290° and is near vertical. Individual quartz veinlets are up to 1 cm wide and contain 0.5 to 1% pyrite. The altered syenite host rock contains 3 to 4% pyrite and locally up to 10%. A sample from this site assayed 1928 ppb Au.

McAra Cu-Zn-Pb Prospect

A prospector partnership (Roy Annett, Robin Lowe, Larry Salo and Jack Tindale) discovered an impressive chalcopyrite, sphalerite, galena, pyrite, pyrrhotite and arsenopyrite stringer sulphide showing on their McAra property in Dufferin Township, south of Shining Tree. The McAra showing is located at UTM NAD 83 17 502578E 5249297N. Nine trench samples, collected by the prospectors at 1 m intervals, averaged 2.1% Cu, 1.1% Zn and 0.7% Pb. Nine grab samples from the showing by Mustang Minerals Corp. averaged 5.6% combined Cu-Zn-Pb. Channel sampling over a length of 5 m by Falconbridge Limited, covering an area nearly devoid of sulphides, averaged 0.08% Cu, 0.13% Zn and 0.09% Pb. Two selected grab samples by the Ontario Geological Survey (OGS) graded 11.5% Cu for the one sample and 6.5% Zn and 10.7% Pb for the other sample. Ten semi-massive and host rock samples were also tested by the OGS for cobalt and range from 22 ppm to 200 ppm and one of these samples assayed 0.06 ounce Au per ton. Six host rock samples from the showing range from 48.55% to 66.86% SiO_2 and 1.49% to 8.76% Na_2O. Typical volcanogenic footwall hydrothermal alteration is not apparent geochemically.

The mineralization occurs in sediments including Archean argillite (with graphite). These rocks are in contact with coarse-grained mafic flow (gabbro?). The mafic volcanic flow (gabbro?)/sedimentary rock contact at the showing strikes north-northwest and both dip and stratigraphical top appear to be to the west. To the east of the showing, the plane of an anticline fold axis (Sudbury – Cobalt Map 2361) strikes to the north-northwest. The fold suggests repetition of similar favourable geology on the eastern side of the fold axis where an untested EM anomaly occurs (R. Annett, personal communication, October 2002). A possible VMS style mineralization environment is indicated by the occurrence of lapilli/agglomerate volcanic rock, which outcrops approximately 200 m to the south-southeast of the showing. The clasts, which constitute a high proportion of the volcanic rock, are strongly deformed to rod shapes, oval in cross section. Stretching and flattening of the clasts are in the plane of schistosity, which is folded at the site and dips predominantly 60° to the west. The long axis of the clasts, which is at least 10 times the other two oval diameters, plunges 60° to 70° to the north. Follow-up exploration at the showing and other sites in the area should be mindful of the stretched nature of the clasts. The configuration of the clasts may suggest similar deformation for sulphide bodies in the area.

The sedimentary/volcanogenic suites of rocks hosting the mineralization occur over an area measuring approximately 8 km from south to north and reach a maximum width of 3 km. To the south and west, the suite of

rocks is intruded by granitic rocks and is covered by Huronian rocks to the north and east. Nipissing diabase is common in the general area.

Wallbridge Mining Company Limited completed eleven diamond drill holes in the immediate vicinity of the McAra showing (Hunter 1998) prior to the exposure by further backhoe stripping of a high-grade chalcopyrite stringer zone. The Wallbridge drilling intersected a high-grade cobalt-arsenic rich polymetallic vein system crosscutting stratigraphy and striking to the northeast towards the McAra base metal showing. Three diamond drill holes intersected the vein system. Diamond drill hole WM-02 intersected 2.4% Co over 3.9 m, including 10.03% Co over 0.46 m and 9.44% Co over 0.46 m, diamond drill hole WM-03 intersected 13.36% Co over 0.57 m and diamond drill hole WM-10 intersected 5.89 % Co, 6% Pb and 10.34% Zn over 0.31 m. The stringer sulphide zone is likely synsedimentary or synvolcanic and Archean in age, whereas the high-grade cobalt-arsenic rich, polymetallic vein system is younger and may be associated with hydrothermal activity associated with the Nipissing diabase intrusions. If the metals in the vein system were derived from the stringer sulphide zone, which carries only small amounts of cobalt, then the amount of cobalt remobilized is perhaps indicative of a substantial base metal deposit. Gibson (1998) examined the showing and drill core by Wallbridge and reached the following conclusion: "The base metal mineralization (Fe, Cu, Zn and Pb) within interflow sedimentary units is likely synvolcanic/synsedimentary. It has no doubt been remobilized into later structures and locally has been concentrated by subsequent deformation events. The association of this mineralization with sediments intercalated with basalt flows is typical of Besshi VMS environments. These deposits range in size from small ($<0.5 \times 10^6$ t) to Windy Craggy [estimates of size range from 90 to 320 million tonnes]. Co and Au are not uncommon associated elements. The mineralization intersected to date could be interpreted as a product of distal low temperature discharge that may or may not be associated with a larger, more proximal sulphide deposit. The lack of significant visible alteration in the mafic volcanics (and sediments) also indicates that the mineralization encountered to date is either small and localized, or distal. If this target is pursued, systematic lithogeochemical sampling of the host sediments and volcanics is recommended in order to find discordant alteration zones typical of more proximal VMS environments".

The property is currently under option to Mustang Minerals Corp. A new grid with lines cut perpendicular to the strike direction of stratigraphy was established and ground geophysics planned prior to diamond drill tests (Ken Lapierre, personal communication, 2003).

The volcanic/sedimentary suite of rocks is small and peripheral to the larger and more famous Abitibi greenstone belt. This is likely the reason for its neglect in the past.

Decker-Swain Gold Showing

The showing is located on unpatented mining claim 1076741 (two units) in Tyrrell Township at UTM NAD 83 17 500572E 5274779N. Albert Decker (50%) and Sherry L. Swain (50%) own the claim.

Overburden stripping of an area approximately 75 m x 7 m has exposed a narrow carbonatized zone with at least two small quartz veins, hosted by mafic volcanic rock. The best exposure was at the middle of the trench where the alteration zone, with two small quartz veins, has a width of 2 m. The alteration zone and quartz veins strike 144° and the quartz veins dip 74° to the northeast. Five samples were collected across the carbonate alteration zone at the site with the best exposure. Three samples of altered material assayed 287 ppb, 12 ppb and 2312 ppb Au and two samples of quartz vein material assayed 2576 ppb and 543 ppb.

Kirkland Lake Rocks – Ritoria Quarry

The Ritoria quarry is operated by Kirkland Lake Rocks in Gauthier Township approximately 18 km east of Kirkland Lake. The property was initially prospected for gold with a 100-foot shaft (MDI32D04SW00100) being sunk in 1912, about 300 m northwest of the present quarry (Thomson and Griffis 1944).

Kirkland Lake Rocks operates a small quarry (NAD27 UTM Zone 17 589841E 5329594N) extracting pieces of "green-carbonate", a carbonate-altered, fuchsite-bearing ultramafic rock situated within the Larder Lake Deformation Zone. Near the quarry, the altered ultramafic rock unit is about 200 m wide, with a northwest trend and is cut by a

few quartz porphyry dikes. The quarry, at the time of the visit, was only 20-30 m wide and about twice as long. The company had a request for 4000 tons of material with a diameter of 2 to 4 feet for the U.S.A. market.

Maralgo Prospect – Yarrow Township

The Maralgo prospect (MDI41P15SE00011) is located approximately 4.5 km south of the village of Matachewan, about 700 m west of Sisseney Lake (UTM NAD27 Zone 17 523815E 5299265N). The Maralgo Mines Limited report (1957) suggests the property was prospected many times prior to the company's exploration program. At that time, the company diamond drilled 23 holes totaling 2975 feet. The best assay was 11.5% Cu over 4.0 feet. Two bulk samples were taken from 2 pits but the results were not reported (Kirkland Lake Assessment File KL-1733).

The prospect occurs in Paleoproterozoic Huronian Supergroup sedimentary rocks, within 1 km of the Sisseney Lake Fault, which separates the Huronian rocks from the Round Lake Batholith to the east (Junnila 1990). The rocks of the Round Lake Batholith have been mapped as foliated leucocratic granite. The prospect occurs as quartz veining within brecciated wackes of the Gowganda Formation of the Huronian Supergroup. On surface, it appears that the brecciated zone may be about 5 m wide with individual veins up to about 0.5 m. The Gowganda Formation is a fine-grained, grey-green wacke with local chlorite spots to 1 mm. In some areas the wacke appears pinkish in colour, possibly due to potassic alteration.

The main zone strikes 060° and dips 85° southeast. Based on the assessment work diamond drilling, there may be more than 1 zone or it is much wider than the 5 m as observed on surface. Very weak, disseminated chlorite alteration is found in the wackes away from the veins but is much stronger adjacent to them. Sulphide minerals (pyrite, chalcopyrite) are generally blotchy and composed of about 1 mm anhedral grains forming pods over 1 cm in the longest axis. Sulphides are found both within the vein and in wall rock near the vein. Hematite and magnetite are also present. Vein samples collected by OGS staff assayed up to 5.5% Fe_2O_3 and greater than 1000 ppm Cu. Gold values were below detection limits of 5 ppb. The property was staked and prospected with an iron-oxide-copper-gold (IOCG) model in mind.

Jkate Explorations Inc. – Sauve Cu-Au-U Occurrence

Jkate Explorations Inc. holds 6 claims (22 units) in the Elk Lake area. Included within the group, on claim L.1217784, is the Sauve copper-gold-uranium occurrence (NTS: 41P/16SE; UTM: NAD 27 Zone 17 556199E; 5288954N; MDI:41P16SE00011). The occurrence is located about 5 km east of Elk Lake and about 150 m along a bush access road south of Highway 560.

The property is described by Johns (1986, p.84):

> "...are underlain by conglomerate and wacke of the Gowganda Formation which has been intruded by a dike of Nipissing diabase which strikes N70°E.
>
> The original discovery of copper mineralization was made around 1903, and trenching and prospecting were carried out between 1903 and 1910. Chalcopyrite and abundant specular hematite occurs in calcite veins found along the contact of the diabase with the sediments and in calcite veins that cross-cut the dike.
>
> The claims were restaked by Chavigny Gold Mines Limited. In 1948, the company carried out a magnetic survey, inspected the original trenches, and sunk a 600-foot long diamond-drill hole through the diabase dike. Calcite veins containing chalcopyrite and specular hematite were intersected. The claims were allowed to lapse.
>
> They were restaked by William Inch who cleaned and deepened the original trenches in 1953 and 1954. A trench 105 feet long exposed the southern contact of the diabase and revealed a 5-foot wide fracture zone which contains pink calcite with vein breccia of diabase that ranges up to 18 inches thick. Pitchblende is found occurring with chlorite in vein breccia. A selected sample of the radioactive material contained 1.56%

U_3O_8 equivalent. Chalcopyrite, minor bornite and pyrite, and abundant specular hematite is also found in the fracture zone. The chalcopyrite occurs in rounded and irregular shaped massive zones up to 3 inches wide. Stan Welsh sunk a 213-foot long diamond-drill hole in 1955.

In 1976, George Welsh tested the Nipissing Diabase-Gowganda Formation contact with five trenches."

Garfield Pinkerton staked the property in 1997. The property was under option to Cusil Venture Corp. until 1999 when it was transferred to Jkate Explorations Inc. Exploration was concentrated on the Merico-Ethel property to the west and no actual work was carried out on the Sauve claim.

The mineralogy of the occurrence (chalcopyrite, hematite, pitchblende) as well as the age and host lithologies, is suggestive of iron oxide-copper-gold (IOCG) type mineralization. In order to investigate this possibility, in November 2002, Jkate Exploration cleaned and sampled some of the old trenches in an attempt to locate the uranium-bearing fracture zone. Samples collected returned values of 14.69% Cu, 0.084 opt Au and 1790 ppm U (Garfield Pinkerton, personal communication, 2003). Samples collected by Kirkland Lake Resident Geologist Office staff returned similar results. Early snowfall precluded the opportunity to map and follow up on these results. This work will be carried out in spring, 2003.

Universal Exploration Corp. – Mattawapika Property

Universal Exploration Corp. holds a group of 10 claims (34 units) straddling the Lady Evelyn River along the Barr-Klock township boundary. The property covers three copper (± Ni, Pb, Zn) MDI occurrences – 41P08NE00011 (First Bay), 41P08NE00012 (Klock) and 41P08NE00013 (Second Bay). The claims are located 25 km west of the town of Haileybury and can be reached by boat from Mowat Landing on the Montreal River at the western end of Highway 558.

The property is underlain by Cobalt Group Gowganda Formation siltstone and argillite intruded by a Nipissing gabbro (diabase) sill. At the intrusive contact, the argillite is metamorphosed to hornfels for about 1 m from the contact and the gabbro is highly sheared and altered (Card et al. 1973). There are numerous quartz-carbonate veins present carrying minor amounts of erratically distributed chalcopyrite, pyrite and galena. Several pits have been sunk on these veins.

Universal Explorations carried out ground geophysical surveys (magnetometer and RealSection Time Domain Induced Polarization) to identify targets. Six holes totaling 454 m were completed to test three zones. Stringer-type vein stockworks were intersected in drill hole U-2002-1, with the best intersection grading 3.02 g/t Au, 36.5 g/t Ag and 1.64% Zn over a 0.4 m interval. Drill hole U-2002-4 returned 5.42% Zn over 0.50 m.

Kirkland Lake Resident Geologist staff collected a sample from a dike logged as an ultramafic gabbro in hole U-2002-6 (at 32.8 m) to compare with other ultramafic dike types noted in the area. Kimberlite and lamprophyric rocks in the Cobalt–Temagami area are currently being explored for diamond potential. The target of diamond drill hole U-2002-6 was an area of magnetic high and low bullseye and linear anomalies which have kimberlite and dike potential. The results of a whole rock analysis done by the OGS GeoLab in Sudbury are shown below:

SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	LOI
43.73%	3.18%	15.64%	15.37%	0.37%	7.03%	6.36%	3.33%	1.51%	0.7%	3.44%

The whole rock geochemistry of the dike (in particular high TiO_2 and low SiO_2) indicates that it is similar in chemistry to late olivine diabase dikes (Sudbury Swarm) published in reports from the Bay Lake Area, (Born and Hitch 1990), Brigstocke and Kittson townships (Born and Burbidge, 1997) and Banting and Best townships (Smyck et al. 1997). The sample contained 64 ppm chromium, which is much lower than the >500 ppm usually found in kimberlite and lamprophyre samples analysed by Kirkland Lake Resident Geologist Office staff.

Cleaning and sampling around the existing pits to delineate the extent and character of the sulphide mineralization is recommended. As well, further circular and linear geophysical targets remain to be tested for diamond potential.

RECOMMENDATIONS FOR EXPLORATION

Iron-Oxide-Copper-Gold Potential (in the Huronian Supergroup)

The search for iron-oxide-copper-gold (IOCG) deposits is developing in the Kirkland Lake Resident Geologist District. The reward for success can be huge, the largest known deposit is the Olympic Dam in Australia with a size of 2.3 billion t grading 1.3% Cu and 0.5 g/t Au, along with significant amounts of Ag, U, and rare earth elements (REE's). IOCG deposits have only been recognized as a distinct ore deposit type since the early 1990's (about 10 years) and significant research on the character of these deposits is beginning to emerge (Porter 2000).

The IOCG deposits are characterized by high iron-oxide content, such as magnetite or hematite, and low sulphur content. Element associations include copper, gold, cobalt, uranium, REE's, barium and fluorine. The deposits occur in a variety of geological settings and range in age from late Archean to Cretaceous. Deposits are localized along high- to low-angle faults which are generally splays off major, crustal-scale faults. They display a variety of morphologies from stratabound sheets to stockwork breccia zones. Virtually all deposits are formed by replacement of host rocks.

Limited exploration is taking place west and south of Matachewan. A number of chalcopyrite-bearing veins (see Maralgo Prospect, this report) have been mapped in the area, as well as a number of auriferous quartz veins with minor associated chalcopyrite. A search of the Mineral Deposit Inventory (MDI) database indicates that the Sauve Occurrence (this report) is one of at least twenty-five copper-gold occurrences in the Elk Lake to Matachewan area.

The above areas are situated in structures conjugate to the Montreal River Fault, a major northwest-trending crustal-scale fault related to the Lake Timiskaming Structural Zone. Mining camps are situated along this fault where it intersects major east-west-trending structures (e.g. Kidd Creek mine at the north end of the fault; Timmins mining camp at the intersection with Destor-Porcupine Fault; Matachewan mining camp at the intersection with Larder Lake Cadillac Fault; and Cobalt mining camp at the intersection of the Montreal River fault and Temiskaming fault).

The Hurnonian Supergroup rocks in the area are thick. Two diamond drill holes near the Huronian-Archean contact west of Matachewan penetrated over 1000 feet of Cobalt Group sedimentary rocks before entering Archean basement (Lovell 1966). The Huronian Supergroup was intensively explored at the turn of the twentieth century for Cobalt-type silver deposits but it has largely been ignored since. For the most part, airborne magnetic surveys available are widely spaced flight line surveys flown in the 1960's. Proximal iron-oxide mineralization and the barite veining suggest a potential for locating IOCG-type mineralization deposits in the area.

Additional Barite Potential in Yarrow Township

Barite was mined continuously for about 25 years in Yarrow Township, by Extender Minerals of Canada. The high purity of the ore make mining profitable. Ore was mined from 3 veins of 4 known veins on the property. The fourth vein, the "Creek Vein", contains considerable concentrations of hematite, making its processing uneconomic. Ore reserves at the mine are nearly exhausted.

During the 2002 field season, mineral occurrences and Huronian-aged outcrops were examined in view of the IOCG mineral deposit model. Interesting hematite alteration was observed on the road to the former Midlothian asbestos mine on the Yarrow Mine property. An examination of dump material revealed samples of hematite-rich material, undoubtedly from the Creek vein. Some of the hematite exhibited botryoidal texture. To the best of the author's knowledge, the existence of botryoidal-textured hematite in the area is rare, with only one known location approximately 7 km to the east, to the northwest of the Sisseney Lake property (MDI41P15SE00005). This site was examined by P.E. Hopkins in 1914. It is described as a lens-shaped quartz vein striking 072° with a near vertical dip,

up to 6 feet wide and exposed for 60 feet (Kirkland Lake Assessment File KL-2819). Three short diamond drill holes totaling 105 feet were completed for assessment work and filed in 1954.

The La Brosse site was visited by M. Leahy (NAD83 UTM Zone 17 524252E 5303944N) during the summer of 2002 and he provided a sample for analysis. A sample of hematite-rich rock from the Yarrow Mine was analyzed for comparison. The La Brosse sample was almost pure hematite, whereas the Yarrow Mine sample contained abundant barite and quartz. The Sisseney Lake sample contained anomalous barium. Both samples have elevated uranium and tungsten values compared to other samples collected over the field season.

Geologically, both veins are within sedimentary rocks of Huronian age. The veins are approximately perpendicular to a northeast-trending fault that separates the sedimentary rocks and the Round Lake Batholith (Junnila 1990). This, as well as the existence of botryoidal hematite, elevated barium, uranium and tungsten, suggest the Sisseney Lake area may be an interesting location to search for high-purity barite veins.

Assessment of Volcanic/Sedimentary Rocks for Cu-Zn-Pb Potential in Shining Tree Area

Several small isolated Archean outliers of volcanic/sedimentary rocks occur in granitic intrusive rocks south and southwest of Shining Tree, Ontario. The Archean rocks are partly covered by Huronian sediments in this area. The surface extents of these Archean volcanic/sedimentary outliers are less than 15 km x 3 km, quite small when compared with the large greenstone belt of the Abitibi. It seems that the miniscule size was a deterrent to exploring these rocks in the past.

Recently, a very impressive mineral showing (see the McAra Cu-Zn-Pb prospect, this report) was discovered in a small greenstone outlier in Dufferin Township, south of Shining Tree. The showing occurs in Archean sediments and Gibson (1998) considers the association of base metal mineralization with sedimentary rocks intercalated with basalt flows as typical of Besshi-type VMS environments.

Falconbridge Limited carried out extensive exploration in Sheard, Amyot, Ogilvie and Browning townships in 1995 and 1996. Only minor base metal mineralization was intersected in diamond drill holes, however, the company identified a Na_2O depletion zone measuring 3.7 km long and averaging 250 m in width. The zone is locally associated with SiO_2 and MgO enrichment and elevated values in the Ishikawa index (Gibbins 1996).

The base metal mineralization so far discovered, and VMS style hydrothermal alteration, at present suggests excellent potential for massive sulphide deposits within these smaller greenstone remnants. Initially, a compilation of existing data is recommended followed by reconnaissance mapping and sampling to determine the presence of F3 rhyolite and hydrothermal alteration zones. Depending on results, airborne magnetometer and electromagnetic surveys should be conducted followed by detailed mapping.

Diamond Potential and Lamprophyre in the Lake Timiskaming Structural Zone – 2002 Update

Recently, diamonds have been recovered from lamprophyre dikes and related heterolithic breccias in Lorrain Township by Prairie C (Murray Simpson and Simon Wareing) and Cabo Mining Corp. These diamonds were discovered partly as a result of recommendations published in the Regional Resident Geologists Report of Activities (Meyer et al., 2001 and 2002).

Ron Sage identified heterolithic breccias and lamprophyre in the Wawa area while mapping for the OGS during the 1970's and 1980's. Explorationists met with success simply by locating and sampling the breccias and lamprophyre identified in Sage's maps and reports. As a result, more than 10 000 diamonds have been recovered from more than 25 occurrences in the Wawa area (Wilson, 2003).

The heterolithic breccias in Lorrain Township were mapped as andesite breccia and lapilli tuff (Lovell and de Gris, 1976) as part of the mafic volcanic inlier. As a result of the success of finding diamonds in these similar rocks in Wawa, it would seem prudent to take a second look at areas identified as volcanic fragmentals, breccias and tuffs on ODM-OGS maps, especially where there are lamprophyre dikes nearby.

OGS ACTIVITIES AND RESEARCH BY OTHERS

Discover Abitibi

Discover Abitibi is a potential $12.5 million program, 40% funded by FedNor, 40% funded by Northern Ontario Heritage Fund Corporation (NOHFC) and 20% by industry, some of which may be "in kind". The project is designed to coordinate and direct an integrated geoscientific investigation of the Abitibi greenstone belt of northeastern Ontario. The objective is to generate targets for follow-up exploration that may lead to the discovery of new orebodies.

To bring this initiative forward, a Management Committee (MC), geological technical committee (TC), economic and community impact evaluation committee and technical sub-committee were formed, and Robert Calhoun was hired to fill the position of Discover Abitibi Project Director.

The TC determines whether proposals meet the overall Discover Abitibi project intent (integrated geoscience, reduce knowledge gaps, economic benefit, benefit the exploration community as a whole) and are feasible in terms of geological potential, areal coverage, technical specifications and costs.

The TC provides direction on management, and reviews approved programs to ensure they meet the target objectives and to provide recommendations to the MC as to the balance between recommended programs.

More than 40 proposals were submitted. Projects were reviewed and ranked by the technical sub-committees with a total of 19 projects recommended to advance to Phase III for funding. Details on technical projects can be viewed at www.discoverabitibi.com.

Ontario Geological Survey Activities

B.R. Berger and G. Leblanc mapped Cairo township at 1:20 000 scale as part of a multi-year project to map a number of townships along the Cadillac–Larder Lake fault between Matachewan and Kirkland Lake. The project includes areas covered by Alma, Holmes, Burt, Eby, Otto, Cairo and Flavelle townships (OGS, 2002).

F.W. Breaks, J.B. Selway and A.G. Tindle studied the rare-element potential of the pegmatite system in the southeastern part of the Case batholith, northeast of Lake Abitibi. The study indicates that more fractionated dikes, enriched in cesium and tantalum mineralization, could lie within this area of poor exposure (OGS, 2002).

G.M. Stott, J.A. Ayer, A.C. Wilson and G.P.B. Grabowski studied Archean-age diamond-bearing lamprophyre dikes and associated heterolithic breccias in the Wawa and Cobalt areas (OGS, 2002).

J.L. Reid conducted a regional modern alluvium sampling survey to obtain information concerning the types and distribution of kimberlite indicator minerals in an area from Cobalt to Elk Lake. This study is an extension of the stream sediments sampled in the Temagami–Marten River area by S.E. Allen in 2000 as well as the Mattawa–Cobalt corridor survey conducted by J.L. Reid in 2001 (OGS, 2002).

R. Dyer, E. Hoffman, B. Hostetler and J. Ray carried out a water sampling project in the Misema River–Misema Lake–Beaverhouse Lake water system near Kirkland Lake. The area was chosen due to its location near existing gold showings, including the past-producing Upper Beaver Mine. Water sampling was being tested as a low cost and simple mineral exploration tool (OGS, 2002).

Geological Survey of Canada (GSC)

GSC research scientist B. McClenaghan, through the Targeted Geoscience Initiative (TGI), continued her research into surficial kimberlite exploration methods at test sites in the Kirkland Lake and Lake Timiskaming kimberlite fields. SP surveys were conducted and soil samples were collected for selective leach analysis over the B30, A4 and 95-2 kimberlites to characterize the geochemical signatures over deeply buried kimberlites and determine optimal soil sampling depths. This research is a collaborative effort between the GSC and OGS. Trenches were excavated in the BBB kimberlite to expose the thin (<0.1 m) cover of glacial sediments and to collect kimberlite and till for U-Pb age determination, petrology, mineralogy and till geochemistry.

As part of an M.Sc thesis at the University of Texas at Dallas, Jamil Sader and Dr. Matt Leybourne collected groundwater from the B30, C14, A4, Diamond Lake and 95-2 kimberlites. This collaborative research between the GSC, University of Texas at Dallas and the Ontario Geological Survey (S. Hamilton) will characterize kimberlite signatures in groundwater and evaluate its potential use for kimberlite exploration. Indicator mineral data for the Peddie kimberlite (GSC Open File 4262) and for kimberlite boulders from eskers (GSC Open File 4361) were released (M.B. McClenaghan, Terrain Sciences Division, Geological Survey of Canada, personal communication, 2003).

Mineral Exploration Research Centre, Laurentian University

M.G. Houlé, C.M. Lesher, H.L. Gibson and R.A. Sproule studied the geological controls on volcanogenic copper-zinc mineralization associated with komatiitic and mafic metavolcanic rocks at the Potter Mine in Munro Township. This is part of an ongoing study aimed at establishing the volcanic facies of komatiites in the Abitibi greenstone belt (AGB) in order to constrain stratigraphic, tectonic and metallogenic models. This new information will aid in future exploration for volcanic-hosted base metal deposits in the AGB (OGS, 2002).

University of Portsmouth, UK

H.S. Oliver has documented the geochemical patterns of the various Archean rock packages in the Shining Tree area. These data will be used in conjunction with the mapping by G.W. Johns, who is currently completing a synoptic Open File Report and 1:50 000 scale map of the Shining Tree area (OGS, 2002).

University of Sydney

F. Williams completed a study on the origins and implications of diamonds in Late-Archean calc-alkaline lamprophyres.

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Table 1. Summary of claims recorded and assessment work credits filed in the Larder Lake Mining Division - 2002.

Year	Claims Units Recorded	Claim Units Cancelled	Claims Units Active	Total ($)
2002	7 097	5 861	21 940	3 839 275
2001	4 308	6 229	20 712	2 888 711
2000	4 506	9 821	22 633	4 532 745
1999	4 042	11 603	27 767	11 119 663
1998	N/A	N/A	35 328	15 152 730

N/A – data not available.

Table 2. Mine production and reserves in the Kirkland Lake Regional Resident Geologist's District - 2002.

Mine	Production to end of 2002		Production in 2002		Reserves at end of 2002	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
Extender Minerals - North Williams	N/A	N/A	N/A	12 000 t	N/A	N/A
Holloway Mine	3 563 791 tons @ 0.175 ounce per ton Au	624 717 ounce Au	629 670 tons @ 0.158 ounce per ton Au	99 412 ounce Au	Prov. – 960 006 t Prob. – 1 881 179 t	6.31 g/t 6.57 g/t
Holt-McDermott Mine	7 278 094 tons @ 0.162 ounce per ton Au	1 178 239 ounce Au	519 730 tons @ 0.161 ounce per ton Au	83 568 ounce Au	Prov. – 20 775 t Prob. – 747 220 t	5.901 g/t Au 6.26 g/t Au
Kirkland Lake Gold Inc.*	N/A	N/A	64 845 tons @ 0.190 ounce per ton Au	12 350 ounce Au	Prov. – 432 400 tons Prob. – 368 400 tons	0.41 ounce per ton Au 0.049 ounce per ton Au
Kirkland Lake Gold Inc. – Macassa Tailings	3 240 890 tons @ 0.054 ounce Au per ton	173 659 ounce Au	123 709 tons @ 0.080 ounce per ton Au	9898 ounce Au	N/A	N/A

** Kirkland Lake Gold Inc. include the Wright Hargreaves, Lake Shore, Teck Hughes, Kirkland Lake and Macassa properties.*

Table 3. Assessment files received in the Kirkland Lake Regional Resident Geologist's District in 2002.

Abbreviations

AEM ..... Airborne electromagnetic survey
AM ..... Airborne magnetic survey
ARa ..... Airborne radiometric survey
AVLF-EM ..... Airborne Very Low Frequency EM survey
Beep ..... Beep mat survey
Bulk ..... Bulk sampling
DD ..... Diamond drilling
DDH ..... Diamond drill hole(s)
DGP ..... Down-hole geophysics
EBS ..... Environmental Baseline Study
Gc ..... Geochemical survey
GL ..... Geological survey
Ind ..... Industrial Mineral Study
M ..... Ground magnetic survey
Gv ..... Gravity survey
HLEM ..... Horizontal loop electromagnetic survey
IP ..... Induced polarization survey
Lc ..... Linecutting
Other ..... Other study
OvD ..... Overburden drill hole(s)
PEM ..... Pulse electromagnetic survey
PGM ..... Platinum group metals
Pr ..... Prospecting
PW ..... Physical work
RE ..... Re-evaluation of surveys
R ..... Resistivity survey
rTr ..... Trenching
SA ..... Sampling (other than bulk)
sTr ..... Stripping
VLEM ..... Vertical loop electromagnetic survey
VLF-EM ..... Very low frequency electromagnetic survey
Ug ..... Underground work

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Alma, Cairo	Kirkland Lake Rocks Ltd.	2000-01	sTr, Bulk	2.22065	KL-5057
Argyle	Phoenix Matachewan Mines Inc.	2002 (1)	Lc, M, IP, R	2.24422	KL-5130
Argyll, Baden	Rosko, P.A. "Baden Project"	2001	sTr, SA	2.21633	KL-5017
Arnold, Gauthier, Hearst, Katrine, McElroy, McVittie	Sudbury Contact Mines Ltd. "Diamond Lake Option"	1993-1994	OvD(30)(776m), SA	Donation	KL-5028
Askin, Best, Brigestock, Chambers, Gillies Limit, Law, Milne, Strathcona, Torrington	Temex Resources Ltd. "Wilson Lake Diamond Project"	2001-2002 (2)	Lc, HLEM, M, SA, Gc, DD(15)(594m), Other	2.23495, 2.23587, 2.24213, 2.22842, 2.23584, 2.22840, 2.23920, 2.22584	CO-2770, CO-2771, CO-2772, CO-2773, CO-2774, CO-2775, CO-2776, CO-2777
Askin, Joan, Riddell	JML Resources Ltd. "Marten River Diamond Project"	2002 (3)	AM	2.23293, 2.23633, 2.22992	CO-2778, CO-2779
Asquith	Annett, R. "Gibson Claim"	2002 (4)	sTr, SA	2.24558	CO-2780
Asquith	O'Connor, T.	2002 (5)	sTr	2.24554	CO-2781
Asquith, Churchill	Skead Holdings Ltd. "Beilby Lake Property"	2000-2002 (6)	Pr, GL, SA	2.23808, 2.23737, 2.23726, 2.23782	CO-2782, CO-2783, CO-2784, CO-2785
Banting, Best	Temex Resources Ltd. "Snare Creek Property"	2001	SA, GL	2.22652	CO-2786
Barnet, Garrison, Michaud	Garrison International Ltd. "Moneta-Skead Options"	2002 (7)	IP, M	2.23817	KL-5100
Barr, Firstbrook	Silver Century Explorations Ltd. "Firstbrook Project"	1995	R, Lc, Gv, M	Donation	CO-2787, CO-2788
Barr, Klock	Chitaroni, G.P. "Mattawapika Property"	2002 (8)	IP, Lc, M	2.24063	CO-2789

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Beatty	Falconbridge Limited "WE-6/WE-7 Properties"	2001	Pr	2.23577, 2.23578	KL-5080, KL-5081
Ben Nevis	Mountain Lake Resources Inc.	2000-2001	Lc, M, EM, DD(1)(159m)	2.22654, 2.22655	KL-4996, KL-4997
Benoit	Madill, B.H. "Pipeline East Property"	1994	Lc, M, VLF-EM	2.15971	KL-3691
Benoit	Rodholm, C.P.	2001	Pr	2.22653	KL-5054
Bernhardt, Teck	Marion, E.J. "Lakeview Property"	2001-2002 (9)	Lc, M	2.23250	KL-5079
Black	Allsopp, A.E. "Allsopp-Luoma Property"	1999	Pr, Lc, M, PEM, GL, SA, Gc	2.22228	KL-4995
Black	Falconbridge Limited "RM-2 Property"	2001	Pr, SA	2.23041	KL-5044
Boston	Pancham Mining Group Ltd.	2000-2001	rTr, SA	2.23564	KL-5120
Boston	Perron, A. "O'Donald Lake Claim"	2002 (10)	Lc, M	2.24115	KL-5106
Bryce	Ewanchuk, J.R. "E-M-S Property"	2001	Lc, M	2.22717	CO-2790
Bryce, Tudhope	Morris, James "Karp Property"	2002 (11)	GL, SA	2.24447	CO-2791
Bucke	Novawest Resources Inc. "Bucke Kimberlite Project"	2000	DD(1)(150m)	2.23801	CO-2792
Bucke	Sudbury Contact Mines Limited "Twin Lakes and Lac Baby Properties"	1995	Other	Donation	CO-2793
Bucke	Wareing, S. K. "North Cobalt Property"	2002 (12)	Lc, M	2.24150	CO-2797
Bucke, Lundy	Tres-Or Resources Ltd. "Lundy Property"	2001-2002 (13)	Pr, SA, Lc, M	2.23221, 2.23219, 2.23031	CO-2794, CO-2795, CO-2796
Burt	Bastarache, G.	2001	DD(1)(50m), sTr, SA, GL	2.22459	KL-5010
Burt	Winteroad Mineral Corporation "Burt Twp. Test Area"	2000-2002 (14)	Lc, M, IP, Gv, R	2.23960	KL-5122
Cairo	Newmont Exploration of Canada Limited "Welsh-Sheedy Property"	1979	GL	2.3027	KL-5086
Carr	Kinross Gold Corporation "Owl Creek Property"	2002 (15)	DD(1)(200m)	2.23799	KL-5088
Carr	Kinross Gold Corporation/Placer Dome Ltd. "Porcupine Joint Venture"	2002 (16)	DD(1)(257m)	2.24513	KL-5133
Cassels, Strathy	Sudbury Contact Mines Ltd. "Strathy Project"	1999	Lc, M, IP, GL, sTr, SA, DD(9)(1392m)	Donation	CO-2798
Catharine	Katrine Exploration and Development Inc. "Misema Property"	2001	PW, Pr, SA	2.22624	KL-4989
Catharine	M.I.T. Ventures Corp. "Group of Eight Property"	2002 (17)	M	2.23438	KL-5074

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Catharine	Metherall, W. and Zabudsky, D.B. "Metherall - Zabudsky Gold Property"	2000-2002 (18)	DD(8)(114m), sTr, SA, Pr	2.23413	KL-5075
Catharine	Sudbury Contact Mines Limited "Marshall and Jones Options"	1993-94	DD(14)(1723m), Lc, M, VLF-EM, IP, Pr, GL	Donation	KL-5016
Catharine	Wigglesworth, F.C. "Hounslow Property"	2001	Pr, SA	2.24001	KL-5090
Catharine, Skead	Salo, A.J./Kosy, R.J.	2002 (19)	Pr, SA	2.24596, 2.24495	KL-5132, KL-5136
Chambers, Corkill, Donovan	Diamond Lake Resources Inc. "Kell Mine Project"	2000-2001	Pr, PW, SA	2.22616	CO-2799
Churchill	Annett, R.	2001	sTr, rTr, SA	2.22538	CO-2800
Churchill	Corpmin Management Inc. "Hinzer, Dirks, Dirks Property"	2001	SA, GL	2.22803	CO-2801
Churchill	Rosko, P.A. "Cochrane Project"	2001-2002 (20)	sTr, GL, SA, rTr	2.23357	CO-2802
Coleman	Traimer, Hans	2002 (21)	PW	2.24320	CO-2803
Coulson, Kerrs, Knox, Warden	Tres-Or Resources Ltd. "Shallow River Property"	2001	DD(2)(300m), SA, Gc	2.22470	KL-5078
Currie	Falconbridge Limited "Currie-Bowman Project"	2002 (22)	DD(4)(1311m), SA	2.23451	KL-5064
Dufferin, North Williams	Annett, R.	2001	DD(2)(403m), SA	2.24186	CO-2804
Eby	Marion, E. J. "Plinky Property"	2000-2002 (23)	Pr, SA, DD(4)(81m)	2.23498, 2.23912, 2.24137	KL-5104, KL-5107, KL-5113
Eldridge, Hebert, South Lorrain	Orex Ventures Inc. "Cooper Lake Property"	2000-2001	sTr, GL, DD(7)(581m), Lc	2.22573	CO-2805
Elliott, Harker	The Perron Gold Corporation "Iris Property"	2001-2002 (24)	GL, Lc, M, VLF-EM	2.22474, 2.22547, 2.22578, 2.22646, 2.22665, 2.22712, 2.22806, 2.22872, 2.22985, 2.23028, 2.23089, 2.23180, 2.23205, 2.23241, 2.23384, 2.23390, 2.23435, 2.23446, 2.23493, 2.23627	KL-4993, KL-5003, KL-5005, KL-5019, KL-5020, KL-5021, KL-5037, KL-5038, KL-5042, KL-5045, KL-5047, KL-5051, KL-5055, KL-5056, KL-5061, KL-5062, KL-5068, KL-5069, KL-5083, KL-5102
Findlay, Henley, Marathon	Baker, C.J. "West Lake Abitibi Property"	2002 (25)	Lc, M	2.24414	KL-5128
Flavelle, Gross	Falconbridge Limited "MT-1/MT-2 Properties"	2001	Pr, M, HLEM	2.23002, 2.23099	KL-5041, KL-5046
Frecheville, Holloway	Gervais, L. N. "Frecheville - Holloway Property"	2001	Lc, IP	2.22577, 2.24682	KL-5053, KL-5141
Galna, Purvis	Queenston Mining Inc. "Lake Abitibi Project"	2002 (26)	Lc, M, IP	2.24304, 2.24312	KL-5126, KL-5127
Garrison	Kinross Gold Corporation "Garrison Option"	2002 (27)	M	2.23458	KL-5072

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Garrison	Moneta Porcupine Mines Inc. "Garrison Stock Property"	2002 (28)	DD(4)(345m)	2.24104, 2.24158	KL-5097, KL-5116
Garrison, Thackeray	Gwen Resources Ltd. "Silverside-64"	2001-2002 (29)	Lc, M, VLF-EM	2.22621, 2.23917, 2.24248, 2.24288	KL-5004, KL-5117, KL-5118, KL-5125
Gauthier	559505 Ontario Limited "Northland Group"	2001-2002 (30)	Lc, M, VLF-EM	2.22467, 2.23553	KL-5022, KL-5082
Gauthier	Egg, H "Misema River Property"	2002 (31)	Pr	2.24109	KL-5105
Gauthier, Hearst, McElroy, McVittie	Sudbury Contact Mines Ltd. "Larder Lake Area"	1987-1995	Lc, IP, R, VLF-EM, M, Gv, AVLF-EM, UTEM, AM	Donations	KL-5027, KL-5029, KL-5031, KL-5032, KL-5033, KL-5034
Gillies Limit	Raven Resources Inc. "Whitney Lake Property"	2001	Lc, M, HLEM, IP, R	2.22776, 2.22618	CO-2806, CO-2807
Guibord	Obradovich, T. J.	2002 (32)	M	2.24099	KL-5110
Hearst, McElroy, McVittie	Sudbury Contact Mines Limited "Diamond Lake Option"	1993, 1997	GL, SA, Lc, IP, R, M	Donations	KL-5014, KL-5030
Hearst, McElroy, McVittie, Skead	Skead Holdings Ltd.	2001-02 (33)	SA, RE	2.22890	KL-5066
Hepburn	East West Resource Corporation	2002 (34)	DD(3)(882m)	2.23899	KL-5092
Hepburn, Sargeant	Seal River Explorations Limited "Esker Property"	2002 (35)	Gc, M	2.24689	KL-5142
Hislop, Playfair	Canadian Arrow Mines Limited "Arrow Property"	1997	Lc, IP, M	2.23558	KL-5084
Holloway	Franco-Nevada Mining Corporation Ltd. "Holloway Project - Argentex Portion"	2000	DD(2)(2340m), SA	2.23463	KL-5065
Holloway	Newmont Canada Limited "Golden Highway Prospect"	2001	DD(3)(1441m)	2.24572	KL-5135
Holloway	Perrex Resources Inc. "H and L Group"	2002 (36)	Lc, M, VLF-EM	2.23496, 2.24003, 2.24373, 2.24514, 2.24553, 2.24556, 2.24591, 2.24687	KL-5087, KL-5094, KL-5129, KL-5134, KL-5137, KL-5138, KL-5139, KL-5143
Holloway, Tannahill	Sheldon-Larder Mines Limited "Magusi Property"	2001	SA, Gc	2.22421	KL-5002
Holmes	Cunningham, L. J.	1998	rTr, SA	2.22519	KL-5052
James	LaCarte, R.E.	2001	sTr, rTr, SA	2.22505	CO-2808
James, Tudhope	JKate Explorations Inc. "Beaver Pond Project"	1999-2000	Lc, sTr, rTr, Pr, EM, M, DD(2)(81m)	2.22574	CO-2809
Katrine	Katrine Exploration and Development "Row-Katrine Property"	2000	PEM	2.22386	KL-5009
Kimberley	Great White Minerals Ltd.	2000	sTr, rTr, SA, Gc	2.22025	KL-5018

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Lamplugh, Rand	Bridge, D.A.	1994	SA	2.15992	KL-3696
Lawson	Lacarte, A.	2001-2002 (37)	rTr, sTr, SA	2.23864	CO-2810
Lebel	Goldaur Resources Inc. "Bidgood Gold Property"	2000	rTr, SA, GL	2.23918	KL-5089
Lebel	Goldaur Resources Inc. "King Kirkland Gold Property"	2000	rTr, SA	2.23916	KL-5093
Lebel	Queenston Mining Inc. "Munro Property"	2001	DD(6)(1859m)	2.23077	KL-5058
Lebel	Sudbury Contact Mines Limited "CTL Option"	1997	IP, R, M, VLF-EM	Donation	KL-5013
Lorrain	Cabo Mining Corp. "Pan Lake/ Anderson Lake Property"	2000 - 2002 (38)	sTr, Pr, SA, Gc, GL, rTr, DD(2)(172m), Other	2.22766, 2.23698, 2.23715, 2.23923, 2.24017, 2.24236, 2.24314, 2.24538, 2.24385, 2.22377	CO-2811, CO-2812, CO-2813, CO-2814, CO-2815, CO-2816, CO-2817, CO-2818, CO-2819, CO-2820
MacMurchy	International KRL Resources Corp. "Copper Hill Property"	2000-2001	DD(4)(1028m), SA, Pr, rTr, sTr, GL, Lc, VLF-EM, PEM	2.22793, 2.23053, 2.23155, 2.24126	CO-2821, CO-2822, CO-2823, CO-2824
MacMurchy	Rosko, P.A. "Bennett Project"	2000-2002 (39)	Lc, sTr, GL, SA, Gc	2.23195, 2.23196	CO-2825, CO-2826
Maisonville	Canadian Royalties Inc. "Bennett Lake Prospect"	2001	Pr, SA	2.22275	KL-4990
Marriott	Plato Gold Corp.	2001	SA, Gc	2.23989	KL-5123
Marriott	The Perron Gold Corporation "101 Property"	2002 (40)	Lc, M, VLF-EM	2.23427, 2.23430	KL-5071, KL-5073
Marriott, Stoughton	Pelangio Mines Inc. "Staz Property"	2002 (41)	DD(3)(1204m), SA	2.24096	KL-5103
McCool	Sudbury Contact Mines Limited "Ransom Creek Property"	1999	DD(3)(531m), SA	Donation	KL-5012
McElroy	Sudbury Contact Mines Ltd. "Misema River Property"	1989	DD(9)(2059m), SA	Donation	KL-5011
McEvay	Valliere, M.R. "Kasba Property"	2001	Lc, Pr, IP, M, Gc, DD(2)(159m), GL	2.22057, 2.22521	KL-4998, KL-5000
McFadden, McGarry	Sudbury Contact Mines Ltd. "Wright Property"	1994-95	DD(4)(1795m), Lc, M, VLF-EM, HLEM, Gv	Donation	KL-5026
McGarry	Chesterville Mines Limited "Kerr Chesterville / Leahy-McGarry"	1950, 1983	DD(20)(3558m)	Donation	KL-5040
McGarry	Salo, A.J. "Foxearth Property"	2001-2002 (42)	Pr, rTr, SA, PW, sTr, DD(1)(170m)	2.22381, 2.22507, 2.23992, 2.24008, 2.24024, 2.24068, 2.24092, 2.24266, 2.24632	KL-4991, KL-4992, KL-5091, KL-5098, KL-5099, KL-5101, KL-5109, KL-5115, KL-5140
McGarry	Salo, A.J. "Kerrigan Property"	2001-2002 (43)	Lc, M, Pr, SA	2.23182, 2.24189	KL-5050, KL-5108

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
McGarry	Salo, A.J. "Salo-Ram Property"	2002 (44)	DD(1)(203m)	2.24260	KL-5121
McVittie	Harrington, M.S. "Binney Lake Property"	2002 (45)	Lc, M	2.23678	KL-5077
McVittie	Northfield Minerals Inc. "Cheminis Project"	1994	DD(6)(727m)	Donation	KL-5039
Mickle	Welsh Silver Mines Limited	2001-2002 (46)	Pr, rTr, SA	2.24069	CO-2827
Morrisette	Gold Insight Resources Ltd.	2001	Lc, M, GL	2.22639	KL-4994
Morrisette	Link, T.A. "Link Property"	1997	Lc, IP	2.22719	KL-5060
Mulligan	Whelan, J. / O'Bradovich, T.	1995	M, VLF-EM	2.15982	KL-3695
Munro	Lalonde, D.J.	2001	rTr, SA, GL	2.22307	KL-5035
Nordica	M.A. Brenner	2000	sTr	2.23443	KL-5063
Ossian	Silver Century Explorations Limited "Ossian Gold Mine Property"	N/A	DD(6)(1390m), GL, Gc	Donation	KL-5024
Ossian	Silver Century Explorations Ltd. "Boudreault-Labbe Property"	1997	DD(4)(691m), OvD(3)(113m)	Donation	KL-5023
Ossian	Sudbury Contact Mines Ltd. "S Property"	1995	OvD(17)(425m), SA	Donation	KL-5025
Ossian	Umiljendic, M.S.	2001	VLF-EM	2.22096	KL-5001
Otto	Marion, E.J. "Plinky Property"	2000-2002 (47)	DD(2)(43m), Pr, rTr, sTr, SA	2.23679	KL-5085
Otto, Teck	Dufresne, R.J.	2002 (48)	sTr	2.24501	KL-5131
Pacaud	Perron, A.H. "Barry Hollinger 4 Group"	2002 (49)	Lc, M, VLF-EM	2.24056	KL-5096
Pense	Novawest Resources Inc. "Golden Poly Project"	2000	DD(8)(750m), GL	2.22544	CO-2828
Playfair	Falconbridge Limited "RM-1 Property"	2001	Pr, SA	2.23102	KL-5043
Powell	Cameco Corporation "Powell Project"	1995	GL, SA	2.15980	KL-3694
Sharpe	Grabowski, R.J.	2001	rTr	2.24290	KL-5119
Sheard	Tindale, J.L.	2001	DD(1)(157m)	2.22254	CO-2829
Skead	Sudbury Contact Mines Limited "K Property"	1995	OvD(3)(70m), SA, Gc	Donation	KL-5015
South Lorrain	Gore, J.A.	2001	sTr	2.24394	CO-2830
South Lorrain	Moore, H. A. "Silver Hill Property"	2002 (50)	Gc, GL, SA	2.24165	CO-2831
South Lorrain	Wolverine Exploration & Mineral Recovery "Windy Lake Claims"	2001	Pr, SA, rTr	2.23419, 2.23420	CO-2832, CO-2833
Steele	J.D. Horne & Associates Ltd. "Case Pegmatite Property"	2001	DD(7)(509m), GL, SA	2.23394	KL-5070

Township	Company Name "Property Name"	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Steele	Navigator Exploration Corp. "East Case Pegmatite Property"	2001	SA, GL	2.23538	KL-5076
Strathcona	Temex Resources Ltd. "Milestone Project - Teck Claims"	2002 (51)	Lc, M, VLF-EM	2.23562	CO-2834
Strathy	Adair, A.W.	2000-2002 (52)	Pr, SA	2.24113	CO-2835
Strathy	Blake, F. "Group of Four Property"	2002 (53)	Tr, SA	2.23720	CO-2836
Strathy	Guppy, M. A. "Bernice Lake Property"	2001	DD(1)(61m)	2.23693	CO-2837
Strathy	King, D.F.	2002 (54)	PW, Pr, SA	2.24473	CO-2838
Strathy	Temex Resources Ltd. "Kanichee Lake Claim Group"	2001	Gc	2.22841	CO-2839
Strathy	Webster, B.R.	2001	RE	2.21737	CO-2840
Taylor	Pentland Firth Ventures Ltd.	1995	Lc, M	2.15970	KL-3690
Teck	Diamond Lake Resources Inc. "Federal Mine Property"	2002 (55)	Pr, SA	2.24043	KL-5095
Teck	DST Consulting Engineers Inc. "Toburn Geotechnical Project"	2001	DD(58)(728m)	Donation	KL-5059
Teck	Lake Shore Mines Limited "Lake Shore Mine"	1968	Ug	Donation	KL-5049
Teck	Vallier, B.W. "Federal Kirkland"	2001	DD(1)(31m), GL	2.22432	KL-4999
Teefy	Leo Alarie and Sons Limited	2001-2002 (56)	Lc, M, sTr, Bulk, GL, Ind	2.22392, 2.23412	KL-5008, KL-5067
Thackeray	Perrex Resources Inc.	2002 (57)	Lc, M, VLF-EM	2.23056, 2.23677, 2.23728	KL-5048, KL-5111, KL-5112
Truax, Tudhope	Kirkland Lake Rocks Ltd.	2000-2001	sTr, Bulk	2.22098	CO-2841
Tudhope	Pelangio Mines Inc.	2002 (58)	PW, SA	2.23269, 2.24292	CO-2842, CO-2843
Tyrrell	Clark, A.H.	2001	PW	2.22529	CO-2844
Tyrrell	Lacarte, A.A.	2002 (59)	GL, sTr	2.24215	CO-2845
Tyrrell	Swain, S.L.	2001-2002 (60)	sTr, rTr, SA	2.24267	CO-2846
Van Hise	W. Johnson Mining & Oil Field Services "Firth Lake Property"	1999	DD(1)(630m)	2.24247	CO-2847
Walker	Cosby, M.S.	2002 (61)	Lc, M, VLF-EM	2.24279	KL-5114
Walker	Falconbridge Limited "Cosby Option"	2001	Lc, M, HLEM, Gc, DD(2)(513m), GL,	2.22659, 2.22660	KL-5006, KL-5007
Wilkie	Denison Mines Ltd. "Galata Claims"	1962	RE	Donation	KL-5124
Wilkie	Echo Bay Mines Ltd.	2001	Pr	2.22824	KL-5036

Table 4. Exploration activity in the Kirkland Lake Regional Resident Geologist's District - 2002.

Abbreviations

AEM ..... Airborne electromagnetic survey	M ..... Ground magnetic survey
AM ..... Airborne magnetic survey	Met ..... Metallurgical testing
ARA ..... Airborne radiometric survey	OvD ..... Overburden drilling
Beep ..... Beep Mat survey	ODH ..... Overburden drill hole(s)
BS ..... Bulk sampling	PEM ..... Pulse electromagnetic survey
DD ..... Diamond drilling	Pr ..... Prospecting
DDH ..... Diamond drill hole(s)	R ..... Resistivity survey
DGP ..... Down-hole geophysics	SA ..... Sampling (other than bulk)
Gc ..... Geochemical survey	Seismic ..... Seismic survey
GL ..... Geological Survey	SP ..... Self-potential survey
GP ..... Ground Geophysics unspecified type	sTr ..... Stripping
Gv ..... Gravity survey	rTr ..... Trenching
HLEM ..... Horizontal loop electromagnetic survey	UG ..... Underground exploration/development
IP ..... Induced polarization survey	VLEM ..... Vertical loop electromagnetic survey
Lc ..... Linecutting	VLF-EM ..... Very low frequency electromagnetic survey

No	Company/Individual (Occurrence Name) or Property	Township/Area	Exploration Activity*
1-61	See Table 3		
62	Acrex Ventures Ltd.	Michaud	DD(9)(3038m)
63	Boulder Mining Corp. (WALP Gold Project)	Bowyer, Galna, Marathon, Moody	OvD(14)
64	Brigadier Gold Inc. (Benson Creek Property)	Hearst	DD(3), SA
65	Cabo Mining Corp. (Cobalt Area Property)	Lorrain	DD(10)(700m), sTr, rTr, SA
66	Goldeye Exploration Inc. (Lacarte Hydro Creek Property)	Tyrell	rTr, SA
67	JML Resources Ltd. (Marten River Project)	Askin, Eldridge, Flett, Gooderham, Hartle, Kenny, McCallum, Milne, Olive, Riddell, Sisk, Torrington	DD(7)(700m), SA, AM
68	Moneta Porcupine Mines Inc. (Golden Highway Project)	Michaud	DD(3)(350m), SA, IP
69	Pelangio Mines Inc. (STAZ Property)	Marriott, Stoughton	DD(3), SA
70	Queenston Mining Inc. (Lake Abitibi Property)	Galna, Moody, Purvis, Steele	DD(10)(6 635m), SA
71	Queenston Mining Inc. (Kirkland Lake Properties)	Gauthier, Lebel	DD(22)(12 000m), SA
72	Royal Vicoria Minerals Ltd. (Golden Reward Project)	Garrison, Guibord, Michaud	AM
73	Sudbury Contact Mines Ltd. (Timiskaming Property)	Auld, Barr, Cane, Coleman, Dane, Firstbrook, Henwood, Hudson, Klock, Leo, Lundy, Van Nostrand	AM, DD, BS

No	Company/Individual (Occurrence Name) or Property	Township/Area	Exploration Activity*
74	Temex Resources Corporation (Juby Gold Property)	Tyrrell	GL, DD(21)(10 000m)
75	Temex Resources Corporation (Wilson Lake Diamond Project)	Askin, Best, Brigestock, Chambers, Gillies Limit, Law, Milne, Strathcona, Torrington	Gc, DD(15)(594m)
76	Tom Explorations Inc. (Lalonde Property)	Munro	DD(610m), SA
77	Tres-Or Resources Ltd. (Temagami North Diamond Project)	Bucke, Coleman, Firstbrook, Lundy	AM
78	Universal Exploration Corp. (Mattawapika Property)	Barr, Klock	M, IP, DD

** Exploration activity is listed if known.*

Table 5. Property visits conducted by the Kirkland Lake Regional Resident Geologist and Staff in 2002.

Number (keyed to Figure 2)	Property/Occurrence (MDI Number)
1	Adit - Yarrow (N/A)
2	Anoki South Zone, Gauthier Twp. (NEW)
3	Baldwin Consolidated (MDI42A01SE00093)
4	Bastarache, Burt Twp. (NEW)
5	Berger, Highway 11 (NEW)
6	Big Four, Nicol Twp. (MDI41P10NW00020)
7	Cabo, Lorrain Twp. (NEW)
8	Cathroy Larder (Mirado), Catherine Twp. (MDI32D04SW00004)
9	Christie (MDI41P15NE00040)
10	Decker-Swain, Tyrrell Twp. (NEW)[1]
11	Dufresne (N/A)
12	Echo Bay, Currie Twp. (N/A)
13	Foxearth (N/A)
14	Goldfields (NEW)
15	Gossan, Lorrain Twp. (NEW)
16	Hillcrest (MDI31M13SW00002)
17	Karola-Larder (MDI32D04SE00095)
18	Kelly-Kirkland (MDI42A01SE00032)
19	Kimberly Quartz (N/A)
20	Kinabi Lake, Katrine Twp. (N/A)
21	Lacarte Option, Tyrrell Twp. (NEW)
22	Lake Shore (MDI42A01NE00022)
23	Lalonde Option, Munro Twp. (NEW)[1]
24	Lorrain Formation, Roadhouse Twp. (N/A)
25	Macassa (MDI42A01SE00020)
26	Maralgo (MDI41P15SE00011)[1]
27	Martin (MDI32D04SE00096)
28	Matarrow (MDI41P15NE00002)
29	McAra, Dufferin Twp. (NEW)[1]

Number (keyed to Figure 2)	Property/Occurrence (MDI Number)
30	McChesney (MDI42A02SE00026)
31	Merico Shaft (MDI41P09NW00014)
32	Metherall & Zabudski (NEW)
33	North Williams Barite Mine, Tracey Lake (MDI41P06NE00005)[1]
34	OPAP1 (NEW)
35	Peterson Creek, Sheard Twp. (N/A)
36	Quartz Vein – Yarrow (N/A)
37	Racket Lake, North Williams Twp. (41P06NE00003)
38	Ritoria (MDI32D04SW00059)[1]
39	Sauve (MDI41P16SE00011)[1]
40	Seager Hill (MDI32D12SE00145)
41	Second Bay (Mattawapika) (MDI41P08NE00012)[1]
42	Teck Hughes (MDI42A01NE00020)
43	Toburn (MDI42A01NE00019)
44	Toburn tailings (N/A)
45	Victoria Creek (N/A)
46	Walsh-Katrine (MDI32D04NE00024)[1]
47	Wright-Hargreaves (MDI42A01NE00017)
48	Yarrow Mine (MDI41P15NE00003)

[1]*Described in "Property Examinations" section, this report.*
NEW – MDI number to be created.
N/A – Does not meet the minimum requirements for an MDI.

Table 6. Publications received by the Kirkland Lake Regional Resident Geologist's Office in 2002.

Title	Author	Type and Year of Publication
Report of Activities 2000, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts	Atkinson, B.T., Hailstone M., Seim, G.Wm., Wilson, A.C., Draper, D.M., Farrow, D., Hope, P., Debicki, R. and Yule, G.	Ontario Geological Survey, Open File Report 6050, 2001 (106050)
Report of Activities 2001, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts	Atkinson, B.T., Hailstone, M., Seim, G.Wm., Draper, D.M., Farrow, D. and Hope, P.	Ontario Geological Survey, Open File Report 6082, 2002 (106082)
Evolution of the southern Abitibi greenstone belt based on U-Pb geochronology: autochthonous volcanic construction followed by plutonism, regional…	Ayer, J., Amelin, Y., Corfu, F., Kamo, S., Ketchum, J., Kwok, K., and N. Trowell	Precambrian Research 115 pp. 63-95, 2002 (15211)
Summary of Field Work and Other Activities 2002	Baker, C.L., Debicki, E.J., Kelly, R.I. and Parker, J.R.	Ontario Geological Survey, Open File Report 6100, 2002 (106100)
600,000 Cubic Feet Air Receiver Underground	Belanger, Jean-Claude	The Canadian Institute of Mining and Metallurgy, 83rd Annual General Meeting (15205)
Report of Activities 2001, Resident Geologist Program, Regional Land Use Geologist Report: Northwestern, Northeastern and Southern Ontario Regions	Debicki, R.L., Drost, A.P., Rowell, D.J. and Yule, G.R.	Ontario Geological Survey, Open File Report 6085, 2002 (106085)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/11NE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4434, Ontario Geological Survey Map 81 728, scale 1:20 000, 2002 (481728)

Title	Author	Type and Year of Publication
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/11NW", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4435, Ontario Geological Survey Map 81 729, scale 1:20 000, 2002 (481729)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/12NE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4436, Ontario Geological Survey Map 81 730, scale 1:20 000, 2002 (481730)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/13SE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4437, Ontario Geological Survey Map 81 731, scale 1:20 000, 2002 (481731)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/13NE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4438, Ontario Geological Survey Map 81 732, scale 1:20 000, 2002 (481732)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/14SE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4439, Ontario Geological Survey Map 81 733, scale 1:20 000, 2002 (481733)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/14SW", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4440, Ontario Geological Survey Map 81 734, scale 1:20 000, 2002 (481734)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/14NE", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4441, Ontario Geological Survey Map 81 735, scale 1:20 000, 2002 (481735)
Residual Magnetic Field Contours and EM Anomalies with Keating Coefficients, "42A/14NW", Ontario	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4442, Ontario Geological Survey Map 81 736, scale 1:20 000, 2002 (481736)
Shaded Magnetic Second Vertical Derivative with Keating Coefficients, Buskegau River, Ontario; NTS 42A/14	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4443, Ontario Geological Survey Map 81 750, scale 1:50 000, 2002 (481750)
Residual Magnetic Total Field and Electromagnetic Anomalies, Buskegau River, Ontairo; NTS 42A/14	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4444, Ontario Geological Survey Map 81 749, scale 1:50 000, 2002 (481749)
Apparent Conductance with Electromagnetic Anomalies, Buskegau River, Ontario; NTS 42A/14	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4445, Ontario Geological Survey Map 81 751, scale 1:50 000, 2002 (481751)
Magnetic Decay Constant (TAU) with Electromagnetic Anomalies, Buskegau River, Ontario; NTS 42A/14	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4446, Ontario Geological Survey Map 81 752, scale 1:50 000, 2002 (481752)
Shaded Magnetic Second Vertical Derivative with Keating Coefficients, Manning Lake, Ontario; NTS 42A/13	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4447, Ontario Geological Survey Map 81 746, scale 1:50 000, 2002 (481746)
Residual Magnetic Total Field and Electromagnetic Anomalies, Manning Lake, Ontairo; NTS 42A/13	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4448, Ontario Geological Survey Map 81 745, scale 1:50 000, 2002 (481745)
Apparent Conductance with Electromagnetic Anomalies, Manning Lake, Ontario; NTS 42A/13	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4449, Ontario Geological Survey Map 81 747, scale 1:50 000, 2002 (481747)
Magnetic Decay Constant (TAU) with Electromagnetic Anomalies, Manning Lake, Ontario; NTS 42A/13	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4450, Ontario Geological Survey Map 81 748, scale 1:50 000, 2002 (481748)
Shaded Magnetic Second Vertical Derivative with Keating Coefficients, Kamiskotia Lake, Ontario; NTS 42A/12	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4451, Ontario Geological Survey Map 81 742, scale 1:50 000, 2002 (481742)
Residual Magnetic Total Field and Electromagnetic Anomalies, Kamiskotia Lake, Ontairo; NTS 42A/12	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4452, Ontario Geological Survey Map 81 741, scale 1:50 000, 2002 (481741)
Apparent Conductance with Electromagnetic Anomalies, Kamiskotia Lake, Ontario; NTS 42A/12	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4453, Ontario Geological Survey Map 81 743, scale 1:50 000, 2002 (481743)

Title	Author	Type and Year of Publication
Magnetic Decay Constant (TAU) with Electromagnetic Anomalies, Kamiskotia Lake, Ontario; NTS 42A/12	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4454, Ontario Geological Survey Map 81 744, scale 1:50 000, 2002 (481744)
Shaded Magnetic Second Vertical Derivative with Keating Coefficients, Pamour, Ontario; NTS 42A/11	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4455, Ontario Geological Survey Map 81 738, scale 1:50 000, 2002 (481738)
Residual Magnetic Total Field and Electromagnetic Anomalies, Pamour, Ontairo; NTS 42A/11	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4456, Ontario Geological Survey Map 81 737, scale 1:50 000, 2002 (481737)
Apparent Conductance with Electromagnetic Anomalies, Pamour, Ontario; NTS 42A/11	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4457, Ontario Geological Survey Map 81 739, scale 1:50 000, 2002 (481739)
Magnetic Decay Constant (TAU) with Electromagnetic Anomalies, Pamour, Ontario; NTS 42A/11	Dumont, R., Coyle, M., Oneschuk, D. and Potvin, J.	Geological Survey of Canada, Open File 4458, Ontario Geological Survey Map 81 740, scale 1:50 000, 2002 (481740)
A High Density Lake Sediment and Water Geochemical Survey of 32 Geographic Townships in The Montreal River Headwaters Area, Centered on Gowganda, Ont	Hamilton, S.M.	Ontario Geological Survey, Open File Report 5962, 1997 (105962)
Geology, Stratigraphy and PGE-Cu-Ni Mineralization of the River Valley Intrusion - Field Trip Guide Book	Hrominchuk, J.L. and S. Jobin-Bevans	Laurentian University Society of Economic Geologists Student Chapter Field Trip Guide Book - Saturday, November 3rd, 2000 (15209)
Precambrian Geology of McNeil, Robertson, Hincks and Cleaver Townships	Jensen, L.S.	Ontario Geological Survey, Open File Report 5931, 2002 (105931)
Geological Report and Valuation Estimate of the Matachewan Project	Keast, T.	Report for Thomas J. Obradovich and Young Davidson Mines Limited, 2002 (15210)
PGM Exploration - Seminars and Field Trips	Laurentian University SEG Student Chapter	Society of Economic Geologists Laurentian University Student Chapter presents PGM Exploration Short Course November 3rd & 4th, 2000 (15208)
Report of Activities 2001, Resident Geologist Program, Red Lake Regional Resident Geologist Report: Red Lake and Kenora Districts	Lichtblau, A., Hinz, P., Ravnaas, C., Storey, C. C., Kosloski, L. and Raoul, A.	Ontario Geological Survey, Open File Report 6079, 2002 (106079)
Geology of Burrows, Kemp and Mond Townships, Shining Tree Area	Machado, G.	Ontario Geological Survey, Open File Report 6077, 2002 (106077)
Precambrian Geology, Burrows, Kemp and Mond townships	Machado, G. and Longuepee, H.	Ontario Geological Survey, Preliminary Map P.3445, scale 1:20 000, 2002 (403445)
Report of Activities 2001, Resident Geologist Program, Thunder Bay North Regional Resident Geologist Report: Thunder Bay North District	Mason, J.K., White, G.D., Scott, J.F., O'Brien, M.S. and Komar, C.	Ontario Geological Survey, Open File Report 6080, 2002 (106080)
Report of Activities 2001, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake and Sudbury Districts	Meyer, G., Cosec, M., Grabowski, G.P.B., Guindon, D.L., Chaloux, E.C. and Stewart, J.M.	Ontario Geological Survey, Open File Report 6083, 2002 (106083)
Residual Magnetic Field, Temagami South area	OGS	Ontario Geological Survey, Map 60 090, scale 1:50 000, 2001 (460090)
Residual Magnetic Field, Temagami South area	OGS	Ontario Geological Survey, Map 60 091, scale 1:50 000, 2001 (460091)
EM Decay Constant, Temagami South area	OGS	Ontario Geological Survey, Map 60 094, scale 1:50 000, 2001 (460094)

Title	Author	Type and Year of Publication
EM Decay Constant, Temagami South area	OGS	Ontario Geological Survey, Map 60 095, scale 1:50 000, 2001 (460095)
Regional modern alluvium sampling survey of the Mattawa-Cobalt corridor, northeastern Ontario	Reid, J.L.	Ontario Geological Survey, Open File Report 6088, 2002 (106088)
Petrographic and Geochemical Studies of Alteration Zones Associated with Gold Mineralization at the Holloway Mine, SW Abitibi Greenstone Belt	Ropchan, J.C.	M.Sc. Thesis, Ottawa-Carleton Geoscience Centre, University of Ottawa, Ottawa., 2000 (120083)
Host-Rock and Structural Controls on the Nature and Timing of Gold Mineralization at the Holloway Mine, Abitibi Subprovince, Ontario	Ropchan, J.R., Luinstra, A., Fowler, A.D., Benn, K., Ayer, J., Berger, B., Dahn, R., Labine, R. and Y. Amelin	Economic Geology Vol. 97, pp. 291-309, 2002 (15207)
Tectonic assembly of continental margin and oceanic terranes at 2.7 Ga in the Savant Lake-Sturgeon Lake greenstone belt, Ontario	Sanborn-Barrie, M. and Skulski, T.	Geological Survey of Canada, Current Research 1999-C pp. 209-220, 1999 (15203)
Three hundred million years of tectonic history recorded by the Red Lake greenstone belt, Ontario	Sanborn-Barrie, M., Skulski, T. and Parker, J.	Geological Survey of Canada, Current Research 2001-C19, 14p., 2001 (15204)
Report of Activities 2001, Resident Geologist Program, Southern Ontario Regional Resident Geologist SE and SW Districts, MMIC and Petroleum Res. Cent.	Sangster, P.J., McGuinty, W.J., Papertzian, V.C., Steele, K.G., Lee, C.R., Laidlaw, D.A., Barua, M., Carter, T.R. and Parkes, B.D.	Ontario Geological Survey, Open File Report 6084, 2002 (106084)
Report of Activities 2001, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District	Schnieders, B.R., Scott, J.F., Smyk, M.C., Parker, D.P. and O'Brien, M.S.	Ontario Geological Survey, Open File Report 6081, 2002 (106081)
Structural Setting and Controls of Gold Mineralization at the Macassa Mine, Kirkland Lake, Ontario	Still, A.C.	M.Sc. Thesis, Queen's University, 2001 (120082)
Marten Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 31L/12, scale 1:50 000, 1975 (405105)
New Liskeard	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 31M/12, scale 1:50 000, 1974 (405012)
Cobalt	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 31M/5, scale 1:50 000, 1983 (405005)
Aylen River	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 32D/13, scale 1:50 000, 1967 (405029)
Obabika Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/1, scale 1:50 000, 1976 (405049)
Gowganda	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/10, scale 1:50 000, 1968 (405058)
Shining Tree	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/11, scale 1:50 000, 1976 (405059)
Opikinimika Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/6, scale 1:50 000, 1968 (405054)
Smoothwater Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/7, scale 1:50 000, 1976 (405055)
Lady Evelyn Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/8, scale 1:50 000, 1976 (405056)
Elk Lake	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 41P/9, scale 1:50 000, 1976 (405057)
Matheson	Surveys and Mapping Branch, Department of Energy, Mines and Resources	Topographic Map 42A/9, scale 1:50 000, 1975 (405073)
Tectonic controls on kimberlite location, southern Africa	Vearncombe, S. and J.R. Vearncombe	Journal of Structural Geology 24, pp. 1619-1625, 2002 (15206)

Title	Author	Type and Year of Publication
Diamonds in Late Archean calc-alkaline lamprophyres Ontario, Canada: origins and implications	Williams, F.	unpublished B. Sc. Thesis, University of Sydney, 2002 (120084)

Table 7. Mineral deposits not being mined in the Kirkland Lake Regional Resident Geologist District in 2002.

Abbreviations

AF.....Assessment Files
CMH.....Canadian Mines Handbook
GR.....Geological Report
MDC.....Mineral Deposit Circular
MDIR.....Mineral Deposit Inventory record
MLS.....Mining Lands, Sudbury
MR.....Mining Recorder
NM.....The Northern Miner
OFR.....Open File Report
PC.....Personal Communication

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
180 East (Lebel)	Au 32D04SW00339	Measured + indicated 326 700 t @ 4.1 g/t Au	Queenston Mining Inc. (CMH 2002-2003, p.350)	Queenston Mining Inc. website 2002	Inactive
Adams Mine (Boston, Lebel)	Fe 32D04SW00013	12 years open pit reserves at time of mine closure. Underground resources unknown.	N/A	N/A	Inactive
Ajax (Strathy)	Cu, Ni, Au, Ag, PGE 31M04SW00022	2 062 505 tons of 0.412% Cu, 0.257% Ni; veins can average 2.9% Ni, 4.0% Cu, 2 g/t Au, 3.4 g/t Pt	Northern Platinum Ltd. (55%) (CMH 2002-2003, p. 315)	CMH 2002-2003, p.315	Inactive
Amalgamated Kirkland (Teck)	Au 42A01SE00151	Inferred 2 639 338 t @ 4.5 g/t Au	Queenston Mining Inc. (CMH 2002-2003, p.350)	Queenston Mining Inc. website 2002	Inactive
Anoki (Gauthier)	Au 32D04SW00069	Measured + indicated 1 072 260 t @ 4.1 g/t Au	Queenston Mining Inc. (CMH 2002-2003, p.350)	Queenston Mining Inc. website 2002	Active
Armistice (McGarry)	Au 32D04SE00013	Drill indicated resource 433 981 tons @ 0.250 ounce/ton Au	Armistice Resources Ltd. (75%) – Sheldon-Larder Mines Limited (25%) (CMH 2002-2003, p.38)	Armistice Resources Ltd. Website 2002	Inactive
Barber Larder (McGarry)	Au 32D04SE00043	60 000 tons of 0.16 oz per ton Au	NFX Gold Inc. (56.25%) - Gwen Resources Ltd. (CMH 2002-2003, p.306)	CMH 1990-91, p.338	Inactive
Blue Quartz (Beatty)	Au 42A09SW00130	109 000 tons of 0.484 oz per ton Au	Thundermin Resources Ltd. (50%) – River Gold Mines Ltd. (CMH 2002-2003, p.412)	NM, March 20, 1980	Inactive
Boston Creek (Pacaud)	Au 31M13NW00053	330 000 tonnes of 4.2 g/T Au	Atapa Minerals Limited (50%) - Teck Corporation (CMH 2002-2003, p.40)	CMH 1998-99, p.52	Inactive
Buffonta (Garrison)	Au 32D05NW00009	400 000 tons of 0.15 oz per ton Au	Gwen Resources Ltd. (60%) - AJ Perron Gold Corporation (40%)(CMH 1996-97, p.26)	CMH 1997-98, p.221	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Cheminis (McVittie)	Au 32D04SE00019	Estimated drill indicated resources - 2.9 million tons avg. 0.17 ounce/ ton Au	NFX Gold Inc. (75%) – Fort Knox Gold Resources Inc. (25%). (CMH 2002-2003, p.306)	CMH 2002-2003, p.306	Inactive
Clenor (Strathy)	Au, Ag 31M04SW00088	24 000 tons of 0.21 oz per ton Au, 1.8 oz per ton Ag	Gwen Resources Ltd. (CMH 1997-98, p.220)	GR 163	Inactive
Commodore (Lebel)	Au 32D04SW00039	738 000 tons of 0.07 oz per ton Au inferred with a higher grade zone of 307 000 tons of 0.11 oz Au per ton inferred	H.Egg, AF (Sudbury Contact Mines Limited AF KL-4447)	AF KL-4447	Inactive
Creek Zone (Hislop)	Au 42A08NW00142	1.1 million tons of 0.186 oz per ton Au	Stroud Resources Ltd. (CMH 2001-2002, p.352)	CMH 2001-2002, p.352	Inactive
Diadem (Strathcona)	Cu, Ni 31M04SW00077	450 000 tons of 0.5% Cu, 0.1% Ni to 400 feet	Teck Corporation – Cominco Ltd.	MDIR N 0045	Active
Eastmaque (Teck)	Au 42A01NE00043	2 132 500 tons of tailings of 0.035 oz per ton Au	Hecla Mining Company (Eastmaque to Equinox Resources Ltd to Hecla in 1994) (CMH 1996-97, p.207-208)	CMH 1991-92, p.142	Inactive
Fenn-Gib (Guibord)	Au 42A09SE00054 42A09SE00187	1.95 million t of 5.13 g/t Au above 250 m level	Barrick Gold Corp. (100% Gib, 70% Fenn, 30% Homestake Canada Inc.) (CMH 2000-2001, p.312, 2002-2003, p. 333)	CMH 2000-2001, p.312	Inactive
Fort Knox (Fawcett, Ogilvie, North Williams)	Cu, Ni NEW	750 000 tons	FNX Mining Company Inc. – Inco Limited (CMH 2001-2002, p.149)	AF	Inactive
Garrcon (Garrison)	Au 32D12SW00004	350 900 tons of 0.191 oz per ton Au	Moneta Porcupine Mines Inc. – Jonpol Explorations Limited (OFR 5735, p.766, CMH 2001-2002, p.249)	Jonpol Explorations Limited News Release, February 2, 1988	Inactive
Glimmer Mine (Hislop, Beatty)	Au 42A09SW00165	Mineable reserves 778 000 t @ 8.91 g/t Resource 1.2 million t @ 5.36 g/t Au	Apollo Gold Corporation (CMH 2002-2003, p. 34)	Apollo Gold Corporation website 2002	Inactive
Golden Harker (Harker, Holloway)	Au 32D05NW00159	500 000 tons of 0.16 oz per ton Au	Golden Harker Explorations Limited (CMH 2002-2003, p.189)	NM, March 7, 1988	Inactive
Gordon Lake (Tyrrell)	Au 41P10NW00006	225 000 tons of 0.20 oz per ton Au to 750 feet	Duncan Gold Resources Inc. – Dalhousie Oil Company Ltd. (AF)	AF	Inactive
Hislop Gold Mine (Hislop)	Au	Measured, indicated + inferred 438 000 tons avg. 0.22 oz per ton Au	St Andrew Goldfields Ltd. (CMH 2002-2003, p.371)	CMH 2002-2003, p.371	Inactive
Hislop West (Hislop)	Au 42A09SW00033	334 882 tons @ 0.178 oz per ton Au	N/A	OFR 5958, p. 7-22	Inactive

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Iris (Harker)	Au, W 32D05NW00021	769 756 tons of 0.07 oz per ton Au	The Alberta Gold Corporation (55%) – Perrex Resources Inc. (45%) (CMH 1995-96 p.289)	AF KL-3170	Inactive
Juby (Tyrrell)	Au 41P10SW00015	2 200 000 t of 4.65 g/t Au	Temex Resource Corp (Press Release June 13, 2002)	Goldeye Explorations Limited Press Release September 18, 2002	Active
LaCarte (Tyrrell)	Au 41P11NE00024	600 000 t @ 6 g/t Au	Goldeye Explorations Ltd. Press Release November 05. 2002	Goldeye Explorations Ltd. Press Release November 05. 2002	Active
Leckie (Strathy)	Au 31M04SW00090	405 000 tons of 0.2 oz per ton Au	Stroud Resources Ltd. (CMH 2000-2001, p.372)	CMH 2000-2001, p.372	Inactive
Ludgate (Michaud, Guibord, Garrison)	Au 42A08NE00159	462 000 tonnes of 5.91 g/t Au	Kinross Gold Corporation (60%) – Coniagas Resources Limited (40%) (CMH 2002-2003, p.109)	TNM February 1, 1999 p. 2.	Inactive
Macassa (Teck)	Au 42A01SE00020	3 582 000 t avg. 11.4 g/t Au	Kirkland Lake Gold Inc. (CMH 2002-2003, p.169)	CMH 2001-2002, p.217	Active
Martin-Bird (Hearst)	Au 32D04SE00143	558 000 tons of 0.114 oz per ton Au	Barrick Gold Corporation (AF KL-3752)	AF KL-3752	Inactive
Matachewan (Powell)	Au 41P15NE00014 41P15NE00017	Open pit inventory of 9 107 450 tons @ 0.042 ounce per ton Au	1519864 Ontario Ltd. (Young-Davidson Mines, Limited Press Release June 26, 2002)	Geological report and valuation estimate, May 10, 2002	Active
McBean (Gauthier)	Au 32D04SW00060	Measured + indicated 835 520 t @ 5.1 g/t Inferred 1 835 230 t @ 6.5 g/t	Queenston Mining Inc. (CMH 2002-2003, p.350)	Queenston Mining Inc. website 2002	Inactive
Newfield (Garrison)	Au 32D12SW000042	450 000 tons of 0.28 oz per ton Au	Jonpol Explorations Limited (58.6%) – Aurado Exploration Ltd. (41.4%) (CMH 2002-2003, p.237)	CMH 1996-97, p.243 and Jonpol Explorations Limited, Project Progress Report, April 10, 1997	Inactive
Omega (McVittie)	Au 32D04SE00017	720 854 tons of 0.16 oz per ton Au	GLR Resources Inc. (CMH 2002-2003, p.182)	CMH 2002-2003, p.182	Inactive
Potter (Munro)	Cu, Zn, Ag, Au, Co 42A09SE00015	Not available	Millstream Mines Ltd. (CMH 2002-2003, p.274)		Inactive
Ramp Property (Beatty, Carr, Coulson, Wilkie)	Au 42A09SW00133	813 414 tons of 0.235 ounce per ton Au	Globex Mining Enterprises Inc. (CMH 2002-2003, p.181)	Globex Mining Enterprises Inc. website 2002	Inactive
Ross (Hislop)	Au 42A08NW00005	1 055 000 tons of 0.125 oz per ton Au	Preston Electrical and Mechanical Ltd. (sold by Giant Yellowknife Mines Limited in 1989 CMH 1990-91, p.188)	CMH 1989-90, p.188	Inactive
Sherman Mine (Chambers, Strathcona, Strathy)	Fe 31M04SW00025	5 years open pit reserves at time of mine closure. Underground resources unknown.	N/A	Northern Daily News, March 7, 1989	Inactive
Southwest Zone (Michaud)	Au 42A08NE00038	2 360 000 t avg. 6.07 g/t Au	Moneta Porcupine Mines Inc. (CMH 2002-2003, p.280)	CMH 2002-2003, p.280	Active

Deposit Name (Township)	Commodity/ MDI No.	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Taylor (Taylor)	Au 42A10SE00066 42A10SE00065	Indicated 2 074 000 tons avg. 0.22 ounce per ton Au Inferred 642 000 avg. 0.23 ounce per ton Au	St Andrew Goldfields Ltd. (CMH 2002-2003, p.371)	St Andrew Goldfields Ltd. Website 2002	Inactive
Teck Hughes (Teck)	Au 42A01NE00020	375 000 tons of 0.2 oz per ton Au	Kirkland Lake Gold Inc. (CMH 2002-2003, p.169)	CMH 1991-92, p.270	Active
Temagami Copper (Phyllis)	Cu, Ni 41I16NE00004	770 000 tons of 1.04% Cu, 0.46% Ni	Teck Corp. – Cominco Ltd. (AF)	AF	Inactive
Tyranite (Tyrrell, Knight)	Au 41P11NE00013	567 000 tons of 0.18 oz per ton Au	Mill City International Inc. (50%) – Tyranex Gold Inc. (CMH 2002-2003, p.273)	NM 06/93	Inactive
Upper Beaver (Gauthier)	Au, Cu 32D04SW00068	Indicated resource 181 347 t of 7.9 g/t Au, 1.2% Cu	Queenston Mining Inc. (CMH 2002-2003, p.350)	Queenston Mining Inc. website 2002	Inactive
Upper Canada (Gauthier)	Au 32D04SW00057	Measured + indicated 4 294 873 t @ 11.0 g/t Au	Queenston Mining Inc. (CMH 2001-2002, p.350)	CMH 2001-2002, p.311	Inactive
Victoria Creek (Gauthier)	Au NEW	4 958 000 t of 3.43 g/t Au	Sudbury Contact Mines Limited (CMH 2002-2003, p.398)	CMH 1998-99, p.429	Inactive

Table 8. Summary of activities of the Kirkland Lake Regional Resident Geologist's Office - 2002.

Activity	Number
Office Visits	2201
Telephone Inquiries	1368
Properties Visited	61
Field Trips Attended	7
Field Trips Given	9
Talks Given	4
Assessment Files and Donations Processed	234
OPAP/Heritage Fund Reports Processed	0
Titles Added to Library Database	67
Drill Holes Added to Drill Core Library	0
MDI Records Updated	69
MDI Records Deleted	0
MDI Records Added	59
MDI Records Deepened	4

Table 9. Gold production in the Kirkland Lake Regional Resident Geologist's District – 2002.

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Aljo	Beatty	2,333	42	0.018	1940
American Eagle	Munro	60	40	0.667	1911
Argyll	Beatty	12,455	851	0.068	1918

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Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Armistice	McGarry	8,282	1,035	0.125	1995, 97 (bulk samples)
Ashley	Bannockburn	157,076	50,123	0.319	1932-36
Barber Larder	McGarry	30,118	3,072	0.102	1988
Barry Hollinger	Pacuad	267,741	77,000	0.288	1918,25-36,44-46
Bidgood	Lebel	586,367	160,184	0.273	1934-51
Blue Quartz	Beatty	500	81	0.162	1923,26,28,34
Bourkes	Benoit	1,298	277	0.213	1918,36-38
Buffonta	Garrison	117,013	12,139	0.104	1981,91-92
Canadian Arrow	Hislop	279,593	17,045	0.061	1980-83
Canamax (Matheson Project)	Holloway	38,675	5,391	0.139	1988
Cathroy Larder (Mirado)	McElroy	89,719	10,231	0.114	1941-44,47,57,87
Centre Hill**	Munro	327,007	422	0.001	1967-70
Cheminis	McVittie	179,013	17,530	0.098	1991-96
Chesterville	McGarry	3,260,439	358,880	0.110	1930-52
Croesus	Munro	5,333	14,859	2.786	1915-18,23,31-36
Eastmaque (tailings)	Teck	1,051,744	28,740	0.027	1988-91
Ethel Copper**	James	17,477	115	0.007	1962-67
Gateford (Swastika)	Teck	103,684	30,068	0.290	1910-47***
Glimmer	Hislop	1,212,592	209,926	0.173	1997-2001
Golden Summit	Maisonville	737	57	0.077	1936-37,45
Gold Hill	Catharine	4,616	660	0.143	1927-28
Gold Pyramid	Guibord	175	36	0.206	1911
Hislop Mine (Hislop East)	Hislop	388,724	48,679	0.125	1990-91,93-95,99-2000
Holloway Mine*	Holloway	3,563,791	624,717	0.175	1993,95(preproduction),96-
Holt-McDermott*	Holloway	7,278,094	1,178,239	0.162	1988-
Hudson-Rand	Teck	6,496	483	0.074	1922
Kerr	McGarry	40,336,512	10,457,441	0.259	1911,38-96
Kirkland Lake	Teck	3,140,283	1,172,955	0.374	1916-60
Kirkland Lake Gold*	Teck	64,845	12,349	0.190	2002-
Kirkland Townsite	Teck	4,230	1,921	0.454	1958-59
Laguerre	McVittie	40,514	7,568	0.187	1937-39
Lake Shore	Teck	17,208,323	8,602,791	0.500	1918-65,82-87,97-98
Macassa	Teck	7,877,532	3,525,389	0.448	1933-99
Macassa (Tailings)	Teck	3,240,890	173,659	0.054	1987-99,02
Matachewan Consolidated	Powell	3,631,908	385,503	0.106	1934-54,80-82
McBean	Gauthier	557,621	45,900	0.082	1984-86
Miller Independence	Pacaud	31	59	1.903	1918
Moffat-Hall	Lebel	16,388	4,780	0.292	1934-35
Morris Kirkland	Lebel	127,253	16,999	0.134	1936-38,40-42
New Telluride	Skead	104	62	0.596	1931-32
Newfield	Garrison	55,000	9,680	0.176	1996(bulk sample)
Omega	McVittie	1,615,081	214,098	0.133	1913,26-28,36-47
Queenston	Gauthier	1,054	177	0.168	1941
Ronda	Macmurchy	24,592	2,727	0.111	1939
Ross	Hislop	6,714,482	995,832	0.148	1936-89
Ryan Lake**	Powell	188,790	1,352	0.007	1948-57,62-64
Stairs	Midlothian	15,835	3,573	0.226	1965-66
Sylvanite	Teck	5,049,536	1,674,808	0.332	1927-61
Teck Hughes	Teck	9,565,302	3,709,007	0.388	1917-68
Toburn	Teck	1,186,316	570,659	0.481	1917-53***

Mine	Township	Tons Milled	Production (oz.Au)	Grade (oz./T)	Years of Production
Tyranite	Tyrrell	223,810	31,352	0.140	1939-42
Upper Beaver	Gauthier	580,562	140,709	0.242	1913-72***
Upper Canada	Gauthier	4,648,984	1,398,291	0.301	1938-71
White-Guyatt	Munro	50	10	0.200	1911
Wright Hargreaves	Teck	9,934,327	4,821,296	0.485	1921-65
Young Davidson	Powell	6,218,272	585,690	0.094	1934-57
Total including tailings		**141,259,579**	**41,417,559**	**0.293**	
Total excluding tailings		**136,966,945**	**41,215,160**	**0.301**	
Kirkland Lake Camp (West to East)					
Macassa	Teck	7,877,532	3,525,389	0.448	
Kirkland Lake	Teck	3,140,283	1,172,955	0.374	
Kirkland Lake Gold*	Teck	64,845	12,349	0.190	
Teck Hughes	Teck	9,565,302	3,709,007	0.388	
Lake Shore	Teck	17,208,323	8,602,791	0.500	
Wright Hargreaves	Teck	9,934,327	4,821,296	0.485	
Sylvanite	Teck	5,049,536	1,674,808	0.332	
Toburn	Teck	1,186,316	570,659	0.481	
Total		**54,026,464**	**24,089,254**	**0.446**	
Kirkland Lake Tailings					
Eastmaque (tailings)	Teck	1,051,744	28,740	0.0273	
Macassa (Tailings)	Teck	3,240,890	173,659	0.0536	
Total		**4,292,634**	**202,399**	**0.047**	
Virginiatown Camp					
Chesterville	McGarry	3,260,439	358,880	0.1101	
Kerr	McGarry	40,336,512	10,457,441	0.2593	
Total		**43,596,951**	**10,816,321**	**0.248**	
Holloway Camp					
Holloway Mine*	Holloway	3,563,791	624,717	0.175	
Holt-McDermott*	Holloway	7,278,094	1,178,239	0.162	
Total		**10,841,885**	**1,802,956**	**0.166**	
Hislop Camp					
Glimmer	Hislop	1,212,592	209,926	0.173	
Hislop Mine (Hislop East)	Hislop	388,724	48,679	0.125	
Ross	Hislop	6,714,482	995,832	0.148	
Total		**8,315,798**	**1,254,437**	**0.151**	
Matachewan Camp					
Matachewan Consolidated	Powell	3,631,908	385,503	0.106	
Young Davidson	Powell	6,218,272	585,690	0.094	
Total		**9,850,180**	**971,193**	**0.099**	

* *Producer in 2002*
** *Base Metal Production*
*** *Intermittent Production*

Figure 1. Mining and milling in the Kirkland Lake District - 2002.

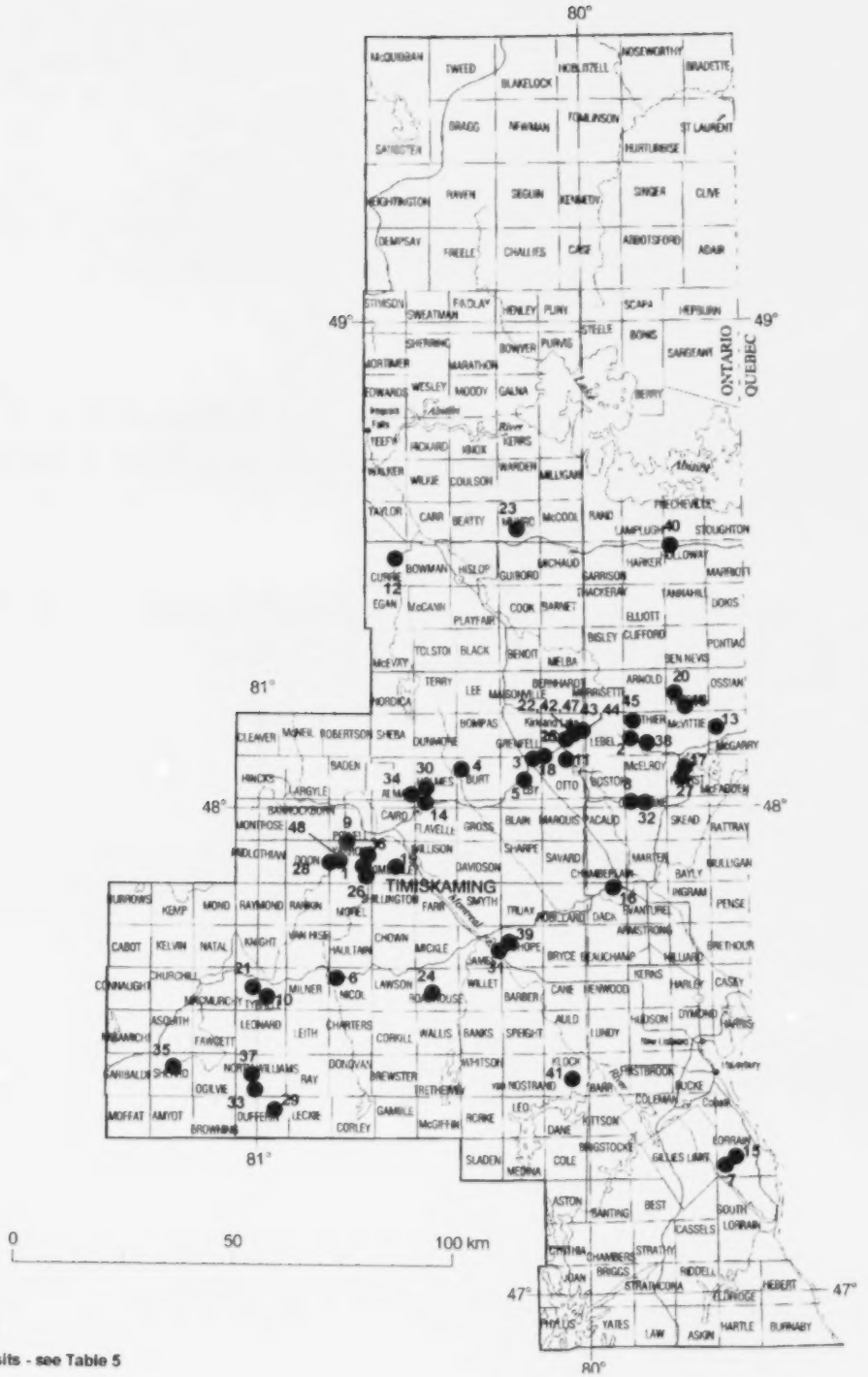

Figure 2. Property Visits in the Kirkland Lake District - 2002.

Ontario

Ontario Geological Survey
Regional Resident Geologist Program

Kirkland Lake Regional Resident Geologist (Sudbury District)–2002

by

M. Cosec, S. Beauchamp and G. Meyer

2003

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Kirkland Lake Regional Resident Geologist (Sudbury District)–2002

M. Cosec[1], S. Beauchamp[2] and G. Meyer[3]

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INTRODUCTION

The Sudbury District Geologist Office includes the judicial districts of Sudbury, Manitoulin, Parry Sound, Muskoka, and parts of Nipissing and the County of Renfrew. It encompasses approximately 45 000 square km and over 340 geographic townships.

Sudbury is among the oldest, and most economically viable, mining camps in the world. Since 1888, over CAN$140 billion has been achieved from approximately one billion tons ore raised.

Active mining claims in the Sudbury Mining Division reached record levels in 2002 (refer to Table 1). This figure does not include the majority of land that is occupied by patents and leases.

Table 1. Summary of claims recorded and assessment work credits in the Sudbury Mining Division in 2002.

Year	Claim Units Recorded	Claim Units Cancelled	Claim Units Active	Total ($)
2002	4946	8332	24501	$11,662,525.00
2001	8501	3531	27444	$4,326,222.00
2000	10 693	3313	22433	$4,441,042.00
1999	3094	2469	15215	$2,241,392.00
1998	2445	3815	13056	$2,182,037.00

MINING ACTIVITY

Nickel and Copper Production

There were 11 nickel-copper mines operated by Falconbridge Limited and Inco Limited in 2002.

The London Metal Exchange (LME) average cash price for Ni in 2002 was $US3.07 per pound, compared to $US2.70 per pound in 2001.

The LME average cash price for Cu in 2002 was $US0.71 per pound, compared to $US0.72 per pound in 2001.

According to Bacon et al. (2002) nickel demand has grown an historic rate of 4% per annum, primarily through the increased demand for stainless steel. The compound annual growth rate for stainless steel in the Western World from 1950 to 2001 is 5.8%. Considering growth in the Asian market for stainless steel, the demand for nickel should grow favourably, and the demand for nickel will remain tight.

FALCONBRIDGE LIMITED

Falconbridge Limited operated 4 mines and one smelter in the area in 2002. The mines include the Craig and Fraser mines in Levack Township, the Lockerby Mine in Denison Township, and the Thayer Lindsley Mine in Blezard Township.

At the beginning of 2002, total proven and probable reserves in Sudbury were 17 M tons averaging 1.42% Ni and 1.30% Cu (Giancola 2002). Production statistics were unavailable at the time of writing.

All ore is concentrated at the company's Strathcona Mill, which has a capacity of approximately 10 000 tons per day. Copper concentrate is shipped to the Kidd Metallurgical Division for smelting and refining. Nickel-copper concentrate is shipped to the Sudbury smelter for smelting. The Sudbury smelter produces matte containing nickel, copper, and cobalt, as well as precious metals and platinum group elements, and has the capacity to produce approximately 130 000 tons per year. The matte is shipped to the Nikkelverk refinery in Norway for further processing (Giancola 2002).

Roaster gas is treated in an adjacent plant to produce sulphuric acid, thereby reducing sulphur dioxide emissions. This plant has the capacity to produce 300 000 tons of sulphuric acid per year (Giancola 2002).

In 2002, Falconbridge Limited employed approximately 1800 persons (Canadian Mining Journal, May 2002).

INCO LIMITED

Inco Limited, incorporated in 1902, celebrated its centenary this year. The company was formed through the amalgamation of 7 mining companies, including the Orford Copper Company, American Nickel Works, the Canadian Copper Company, the Anglo-American Iron Company, the Vermilion Mining Company of Ontario, Limited and the Huronian Company, Limited (Royal Ontario Nickel Commission, 1917). Several of its current producing operations were acquired upon the merger with the Mond Nickel Company in 1929.

The company posted a net loss in earnings in 2002 of US$1.48 M compared to US$305 M net earning profit in 2001. Much of the loss can be attributed to costs associated with the company's suspension of activities at its Goro project in New Caledonia.

Inco Limited production statistics are listed in Table 2.

Table 2. Production summary for Inco Limited, Ontario Division, 2002.

Year	Copper (million lbs.)	Nickel (million lbs.)	Cobalt (million lbs.)	PGM (thousand oz.)
2001	238.5	194.7	1.92	362.7
2002	233.9	204.2	2.05	398.1

Inco Limited operated 7 underground and one open-pit mine in 2002. Processing facilities, which produce a total of 10 commodities, include the Clarabelle Mill (capacity approximately 45 000 tons per day), the Copper Cliff Smelter, 4 refineries, 3 sulphuric acid plants, 1 liquid sulphur dioxide plant, and 1 oxygen plant.

Crean Hill Mine ceased operations in June 2002 due to depleted reserves. The mine was discovered in 1885 and production began in 1906. It has operated intermittently since then. Production figures for the Crean Hill Mine were unavailable at the time of writing. All physical plant structures have been removed.

The Gertrude Mine, also known as the Creighton West deposit, operated intermittently throughout the year as a contract open-pit operation. Although discovered in 1884, it did not realize production until 2000. It is Inco's only current open-pit mine.

Frood Mine operations have been amalgamated with the Stobie Mine.

The Lower Coleman Mine operations have been phased into McCreedy East Mine operations.

The Totten Mine, hosted by the Worthington Offset Dike, has been upgraded from care-and-maintenance to standby status.

Inco employment levels stood at approximately 4700 in 2002 (Canadian Mining Journal, May 2002).

Industrial Mineral Production

Several industrial mineral commodities were produced in the Sudbury district in 2002 (Table 3 and Figure 1), including dolostone, silica, trap rock, flagstone, and sundry varieties of coloured landscaping aggregates. Two new flagstone (limestone) quarries opened on the eastern part of Manitoulin Island. Numerous companies throughout the Sudbury District extracted considerable amounts of sand and gravel for various purposes.

Table 3. Industrial mineral and dimension stone producers in the Sudbury Mining Division in 2002 (keyed to Figure 1).

No.	Township / Area	Company / Individual	Commodity
1	Badgeley Island	Unimin Canada Ltd.	Silica
2	Bigwood	Allstone Quarry Products Inc.	Flagstone (Gneiss), Landscaping Stone
3	Curtin	INCO Ltd.	Silica
4	Dana	Upper Canada Stone Company Ltd.	Decorative Crushed Stone (Anorthosite)
5	Dawson	Lafarge Canada Ltd.	Aggregate (Limestone)
6	Gordon	Canadian Colour Rock Inc.	Flagstone (Limestone), Landscaping Stone
7	McAuslan	McLaren's Bay Mica Stone Quarries	Flagstone (Gneiss)
8	McDougall	Mill Lake Stone Quarry Ltd.	Flagstone (Gneiss)
9	Ratter	Crea-Mac Contracting Company Ltd.	Decorative Crushed Stone (Granite)
10	Venturi	Agricultural Mineral Prospectors	Organic Fertilizer

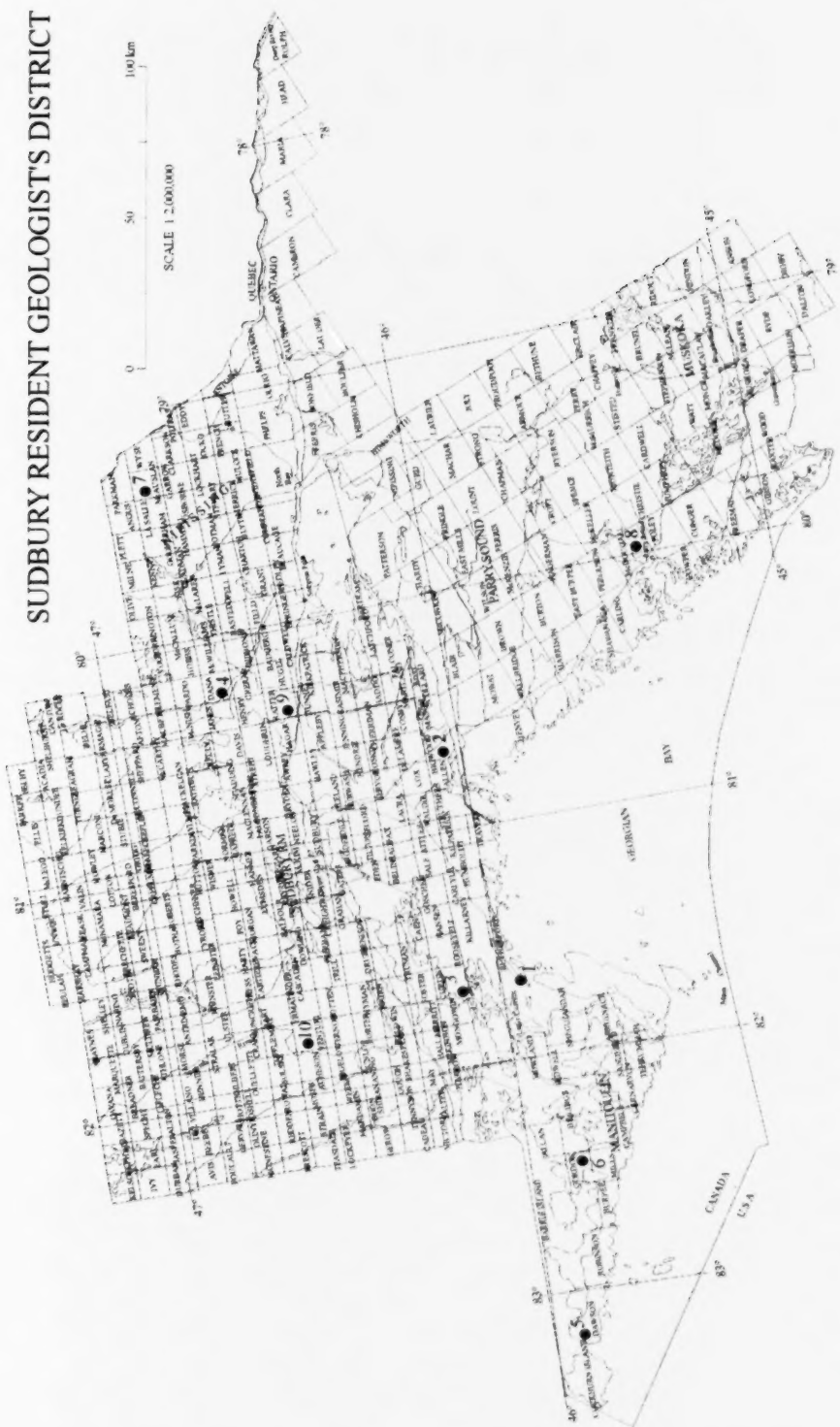

Figure 1. Industrial mineral and dimension stone producers in the Sudbury District in 2002 (keyed to Table 3).

AGRICULTURAL MINERAL PROSPECTORS INCORPORATED

This company continued the third year of seasonal operations producing vermiculite and calcite from the Burns Mine in Venturi and Tofflemire townships, on the Spanish River Carbonatite Complex.

The product is marketed as an agricultural mineral fertilizer and soil conditioner for use with certified organically produced and conventionally produced crops. The average mineral composition is 70% calcite, 10% apatite, 15% biotite/vermiculite, and 5% accessory minerals (pyroxene, chlorite, magnetite and feldspar). It has been certified for use in "organically" grown crops in Ontario and the United States. Present markets include southern Ontario, Michigan, Quebec, Vermont, Pennsylvania, and New York State. A small quantity is also available locally.

In 2002, 5000 tons were removed from a small pit. To date, total production is 9000 tons (J. Slack, Agricultural Mineral Prospectors Incorporated, personal communication, 2003).

INCO LIMITED

Inco Limited quarried high-purity silica from Paleoproterozoic Lorrain Formation quartz arenite of the Huronian Supergroup at its Lawson Quarry in Whitefish Falls. The material is used as flux at the Inco Limited Copper Cliff smelter. Production statistics are confidential. This was supplemented by intermittent supplies from various local contractors (T. Ruthernberg, Ministry of Natural Resources, personal communication, 2003).

LAFARGE CANADA INCORPORATED

Lafarge Canada Incorporated quarried 4.4 million tons of dolostone from its Meldrum Bay quarry in Dawson Township on the western end of Manitoulin Island. Massive dolostones of the Paleozoic Amabel Formation are excavated in a single lift of approximately 50 feet. The material is classified as 70% construction aggregate and 30% metallurgical grade flux. Lake freighters ship the material to markets in southern Ontario and the United States (M. Wickett, Lafarge Canada Incorporated, personal communication, 2003).

RENGER RESOURCES LIMITED

Renger Resources Limited crushed, sorted and shipped 400 000 tons of low-grade iron ore from the former Moose Mountain Iron Mine in Hutton Township.

The material is from an unprocessed stockpile that remained after the mine ceased operations in 1981. It is shipped by truck to the Canadian National Railway Company siding at Milnet, where it is loaded into maintenance-of-way hopper cars for use as railway ballast. The railway is decreasing its reliance on smelter slag due to perceived environmental concerns (R. Gervais, Renger Resources Limited, personal communication, 2003).

UNIMIN CANADA LIMITED

Unimin Canada Limited produced approximately 500 000 tons of high-grade silica from Bar River Formation quartz arenite of the Paleoproterozoic Huronian Supergroup on Badgeley Island. The material is shipped to Midland, Ontario and Ashtabula, Ohio for further processing (Cosec et al., 2002).

ADVANCED EXPLORATION

Most producing mines conducted advanced exploration and development activities at their operations throughout 2002. Selected operations are highlighted below.

FNX MINING COMPANY INCORPORATED/DYNATEC CORPORATION

FNX Mining Company Incorporated and Dynatec Corporation, as part of the Sudbury Joint Venture, have reconditioned the McCreedy West ramp to the 1600 Level and are preparing the 700 Vein Complex for mining start-up early in 2003. Refurbishing the ramp will allow underground diamond drilling of the 950 Vein Complex, Inter-Main Deposit, PM Zone and the Boundary Deposit (FNX Mining Company Inc., News Release, December 17, 2002; J.M. Patterson, Speaker Abstracts, Ontario Exploration and Geoscience Symposium, December 2, 3 and 4, 2002; and P. Lewis, personal communication, 2002).

INCO LIMITED

Advanced exploration and development continued at Phase 1 between the 7400-foot level and the 7660-foot level at the Creighton Mine, now in operation for 101 years. The Creighton Deep Project is expected to produce 10 900 t Ni, 9500 t Cu, and 28 000 ounces of PGE. The second phase of the project will develop the 8180-foot level between 2005 and 2019 (Inco Limited, press release, January 6, 2003).

Expansion continues at the McCreedy East Mine, with a minimum of reserves of 15 years. This project is expected to increase production at the mine to 4350 t per day from a current 2700 t per day, by late 2004. At this rate, the mine will produce 22 M kg Ni and 42 M kg Cu annually, up from the current 13 M kg Ni and 37 M kg Cu (Inco Limited press release, October 31, 2002).

Inco Limited also announced a US$31 M expansion program at its Garson Mine. A new production headframe was erected in late 2002. This program is expected to increase the mine-life by another 20 years (E. Stringer, Prospector, personal communication, 2003).

Advanced exploration and development is on abeyance at the Kelly Lake, Pump, Lake, and Totten deposits after Inco Limited decided to proceed with the Voisey Bay discovery in Labrador.

EXPLORATION ACTIVITY

Exploration levels in 2002 continued at an all-time high that began in 1997 with PGE exploration peripheral to the Sudbury Igneous Complex (SIC), and most recently expanding to the Ni-Cu-PGE deposits of the SIC.

A total of 7 junior mineral exploration companies have established or re-established field offices in the Sudbury area.

Approximately 60 companies and individuals conducted exploration in the Sudbury District in 2002 (see Table 1 for the value of exploration carried out in the district in 2002). A list of known exploration activity is presented in Table 4 (keyed to Figure 2). A list of assessment files received in the Sudbury District in 2002 is presented in Table 5.

Exploration programs of note are detailed below.

AURORA PLATINUM CORPORATION

Aurora Platinum Corporation actively explored for nickel-copper-PGM deposits on four properties in the Sudbury District: the Foy Offset Dike Property; the Footwall Property; the North Range Property; and the Nickel Lake Property.

The Foy Offset Dike Project, under option from Falconbridge Ltd., is situated 30 km northwest of the city of Sudbury. It is located adjacent to, and north of, the Sudbury Igneous Complex (SIC), within the North Range of the Sudbury Basin. The property contains approximately 10.5 km of the Foy Offset Dike. Nickel-copper-PGM has been discovered in both the sublayer and the dike.

The Footwall Project, also under option from Falconbridge Ltd., is situated adjacent to the Falconbridge and the Falconbridge East mines. The property contains an 8.5-km section of the SIC contact and footwall rocks. UTEM techniques, applied to diamond drill holes in the footwall zone, were used to help define mineralization. It was discovered that the Falconbridge and Falconbridge East deposits extend at depth, and mineralization also occurs between the two mines at depth.

Aurora owns 100% of the North Range Property. It is situated 30 km northwest of Sudbury. The project covers 5040 hectares of mineral claims, which are contiguous with the Foy Property. A number of good airborne geophysical targets were delineated, and follow-up exploration focused on the footwall breccia of the SIC.

The Nickel Lake Project, under option from Inco Ltd., is located approximately 30 km north-northwest of Sudbury. It consists of 70 hectares of mineral claims, which lie along a 1.4-km strike length of Foy Offset Dike, from Nickel Lake in the east to Foster Lake in the west. The property is adjacent to Inco's WD 150 Nickel-Copper deposit and the Foy Project. Diamond drilling has commenced to determine grade of Ni-Cu-PGM mineralization within the dike, as well as to determine the extent and subsurface geometry of an untested coincident airborne conductor (www.auroraplatinum.com).

FNX MINING COMPANY INCORPORATED AND DYNATEC CORPORATION – SUDBURY JOINT VENTURE

Early in 2002 FNX Mining signed an option with Inco Limited to earn a 100% interest in five former Cu-Ni-Pt-Pd and Au producing properties (McCreedy West, Levack, Norman, Victoria and Kirkwood) located along the contact of the Sudbury Igneous Complex (SIC). Simultaneously, FNX Mining formed the Sudbury Joint Venture with mine operator Dynatec Corporation as a 25% partner to explore and develop the properties. FNX is the exploration operator and Dynatec the mining operator. The Joint Venture (JV) partnership anticipated meeting its required expenditures of $14 million at the end of December 2002, six months ahead of schedule. In addition, the JV expects to spend the entire $30 million required to exercise the Inco option by the end of 2003, some two and one half years ahead of the original schedule. Exploration diamond drilling began in late March and by fall the Joint Venture had a total of 15 drill rigs (13 surface and two underground) operating on four of the optioned properties.

Exploration activity has led to several new discoveries, which are as follows:

1. McCreedy West – a contact type, nickel-rich deposit, called the Inter-Main was discovered and appears to consist of a series of semi-massive sulphide lodes, each with a topographic low at the contact of the SIC with underlying Archean rocks. In addition, the JV is exploring several other previously known zones such as the 700, 950, Upper Main and East Main zones, some of which are portions of previously defined ore bodies not mined by Inco. The potential of a Pt-Pd-Au zone in the footwall will be explored in the future.

2. Norman – two wide zones of moderate- to high-grade Cu and total precious metal (TPM = Pt+Pd+Au) mineralization were encountered at surface in the North Zone and 2300 feet down-plunge in the 2000 Zone. Diamond drilling is expanding the two zones and priority is given to exploring the high-mineral-potential ground between the two zones.

3. Victoria – a new deposit, the Powerline deposit, was discovered through follow-up of an ATEM airborne geophysical survey. The survey delineated coincident magnetic highs and electromagnetic conductivity below an active power line corridor. Semi-massive and massive sulphides were encountered plunging steeply to the south. Reinterpretation of geophysical and diamond drilling results suggest that the host rock for the Powerline deposit is the faulted and off-set continuation of the northern extension of the Worthington Offset Dyke, host to Inco's Totten Mine.

CROWFLIGHT MINERALS INCORPORATED

Late in 2002, Crowflight Minerals Incorporated resumed a diamond drilling program at its AER Nickel/Kidd Copper property Ni-Cu-PGE prospect on the Worthington Offset Dike in Denison Township. Targets are on strike with the Inco Limited Totten deposit and the newly discovered Powerline deposit of FNX Mining Corporation. Target depths are projected to be 1500 m below surface. The AER Nickel/Kidd Copper property was in production from 4 zones from 1968 to 1970 with extensive lateral development. Crowflight Minerals Incorporated hold 100% of this property (Crowflight Minerals Incorporated press release, December 27, 2002).

AQUILINE RESOURCES INCORPORATED

Aquiline Resources Incorporated acquired additional claims adjacent to its Dana North PGE occurrence on the Paleoproterozoic River Valley differentiated mafic intrusive complex. In October 2002, the company announced a 2000 m diamond drilling program at the Dana North and AQI zones (Aquiline Resources Incorporated press release, October 25, 2002). More recent results can be found at the company's website at www.aquilineresources.com .

URSA MAJOR MINERALS INCORPORATED – SHAKESPEARE NI-CU-PGE DISCOVERY

Exploration by Ursa Major Minerals Incorporated resulted in a significant discovery of both an extension along strike and a grade enhancement of previously defined mineralization at the Shakespeare Ni-Cu-PGE Deposit in Shakespeare Township. The near-surface inferred resource, prior to Ursa's recent drilling program, was 1.9 million t at a grade of 0.36% Ni, 0.42% Cu, 0.40 g/t Pt, 0.44 g/t Pd and 0.23 g/t Au over a strike length of 488 m. The company has an option to earn up to 75% interest in the property from Falconbridge Limited.

Seven new diamond drill holes by Ursa Major Minerals discovered mineralization to the northeast of the historic Shakespeare Deposit. The seven-hole, 1333 m diamond-drilling program tested three sections spaced at 61 m intervals. Holes were drilled to a maximum depth below surface of approximately 132 m. Highlights include hole U3-04 with an intersection of 0.57% Ni, 0.64% Cu, 0.56 g/t Pt, 0.61 g/t Pd and 0.32 g/t Au over 89.3 m; and U3-06 with 0.66% Ni, 0.61% Cu, 0.47 g/t Pt, 0.54 g/t Pd and 0.27 g/t Au over 81.0 m. Cobalt averages 0.03% to 0.04% in the mineralized intervals. Estimated true widths of these intersections range from 49 m to greater than 61 m. The zone remains open on strike to the northeast, at depth, and for 152 m to the southwest towards the previously defined Shakespeare Deposit. The initial two drill holes were targeted from surface mapping and a spectral IP geophysical survey completed by JVX Ltd. As of November 2002, further drilling was in progress to the northeast, where surface prospecting and time-domain EM geophysics have been used to outline drill targets.

The observed geologic sequence within the Shakespeare intrusion appears to represent a normal gradation downward into the intrusion. The sequence from northwest to southeast consists of: (a) quartzite country rock; (b) biotite-quartz diorite with variably assimilated screens and inclusions of quartzite; (c) biotite gabbro with similar but less abundant quartzite inclusions; (d) mineralized gabbro and melanogabbro; and downward into (e) unmineralized gabbro. The style of magmatic sulphides in the mineralized zone progresses downward from: (1) sporadically disseminated pyrrhotite and chalcopyrite; through (2) scattered, multi-centimeter sized, blebby composite pyrrhotite-chalcopyrite grains; to (3) more evenly distributed, heavily disseminated to locally net-textured magmatic sulphides. Intrusive contacts appear to dip steeply (80 to 85° N), and the main mineralized zone appears to have a similar north dip, which shallows with depth to 60° N.

U-Pb geochronology from the Royal Ontario Museum (ROM) Geochronology Laboratory on zircons from the dioritic portion of the Shakespeare intrusion yielded an age of 2217.0 ±l. 7 Ma. Thus, the quartz diorite was emplaced as part of the Nipissing intrusive event, dated at 2219 ±4 Ma by Corfu and Andrews (1986) and at 2217 ±4 Ma by Noble and Lightfoot (1992).

FALCONBRIDGE LIMITED - NICKEL RIM SOUTH DISCOVERY

In 2001, Falconbridge designed a new exploration strategy for the Sudbury area. The plan includes an aggressive search for small- to medium-sized Ni-Cu deposits above 1500 m within the Contact, Footwall and Offset environments of the Sudbury Igneous Complex (SIC). Traditionally, the company has concentrated on exploration targets that have potential for large (>10 MT) ore bodies in the Contact environment.

As part of the exploration effort, the construction of a basin-wide 3D model was completed. The model was utilized to initiate a systematic review of the Falconbridge properties in the Sudbury Basin. Early in the technical review process, a borehole electromagnetic anomaly was identified in historic data from hole Mac-100, completed in 1996 as part of a widely spaced, stratigraphic diamond drilling program. The anomaly corresponded with prospective untested geology approximately 2 km along strike from Falconbridge's Nickel Rim deposit (inferred resource: 1.6 MT of 1.58% Ni, 10.31% Cu, 4.18 g/t Pt, 3.5 g/t Pd and 2.51 g/t Au).

The historic drill hole was subsequently re-surveyed in September 2001 with the Lamontagne UTEM IV system, and two significant, non-decaying anomalies were interpreted to lie up-dip from minor mineralization intersected in Mac-100. A wedge was subsequently set in the drill hole on October 21, 2001, and significant mineralization was initially cored on November 13.

The discovery is in the southern part of the East Range of the SIC. The local stratigraphic sequence consists of a brecciated granite to granodioritic footwall (Sudbury Breccia) overlain by the SIC main mass comprising Late Granite Breccia ("LGBX"), Sudbury Sublayer Norite ("SLN"), Quartz-bearing Mafic Norite and Felsic Norite.

Two styles of mineralization have been identified. Contact mineralization forms disseminated and semi-massive to massive pyrrhotite containing 5% pentlandite and up to 5% chalcopyrite at the LGBX-SLN contact. Footwall mineralization is hosted in Sudbury Breccia and occurs as massive, pentlandite-bearing chalcopyrite veins, 0.5 to 20.0 m wide, within a halo of disseminated chalcopyrite and bornite mineralization. Inferred resources for the mineralized zones are currently estimated at 4.6 MT at a grade of 2.17% Ni, 4.90% Cu, 3.12 g/t Pt, 3.66 g/t Pd, 2.60 g/t Au and 18.56 g/t Ag (S. McLean and K. Stevens, Falconbridge Limited – Speaker Abstracts, Ontario Exploration and Geoscience Symposium, December 2, 3 and 4, 2002).

MUSTANG MINERALS CORP. AND FALCONBRIDGE LIMITED – EAST BULL LAKE PGM PROPERTY

Mustang Minerals completed six diamond drill holes totaling 860 m over a strike length of 1000 m at their East Bull Lake PGM property, located 80 km west of Sudbury. Drill holes were approximately 200 m apart and were centered over trenches that returned values up to 1.92 g/t total precious metals (TPM= Pt+Pd+Au) across 15.7 m. All six holes intersected highly anomalous TPM and minor copper and nickel. The best intersection in drill hole ME-02-35 intersected 1.1 g/t TPM and 0.16% Cu+Ni over 16 m, including 1.89 g/t TPM and 0.36% Cu+Ni over 5 m. Important previous drill results include 2.03 g/t TPM over 15 m and 2.53 g/t TPM over 12 m. Falconbridge Limited recently withdrew from the project under the terms of an Equity and Joint Venture Agreement (www.mustangminerals.com and www.mustangminerals.com Mustang Minerals Corp., News Releases, September 09 and 11, 2002).

MUSTANG MINERALS CORP. AND IMPALA PLATINUM HOLDINGS LIMITED – RIVER VALLEY

In June 2002, Mustang Minerals Corp. and Impala Platinum Holdings Limited (Implats) announced further diamond drilling results at the River Valley PGM Property, located 50 km east of Sudbury. Drilling identified additional platinum group metals (PGM) mineralization in two mineralized layers within the River Valley layered intrusion, intersected in the previous year's reconnaissance drilling program. The two mineralized rock layers are an olivine gabbro-norite layer (OLGN) and an inclusion-bearing chaotic zone (IBCZ). Both zones are located along the northwest-trending margin of the intrusion that strikes for 5.0 km across the property. Some significant drill results

for the IBCZ include 1.32 g/t TPM over 10.5 m, 1.84 g/t TPM over 6 m, 1.47 g/t TPM over 9 m, 1.24 g/t TPM over 10.5 m, 1.01 g/t TPM over 25.5 m and 1.03 g/t TPM over 27 m. The OLGN zone returned values of 3.71 g/t TPM over 2 m, 4.13 g/t TPM over 2.1 m and 2.13 g/t TPM over 4.8 m.

Both mineralized layers are interpreted to continue for approximately 2.0 km to the northwest, toward the common boundary between the Mustang/Implats and PFN/Amplats properties (see "Pacific Northwest Capital Corp. and Anglo American Platinum Corporation Limited (Anglo Platinum) - River Valley", below). Within this 2.0-km strike length and approximately 1.0 km to the northwest of the completed drill holes, a surface trench intersected the IBCZ, which yielded 1.62g/t Au-Pt-Pd across 14 meters in a continuous channel sample.

Mustang and Implats are in Joint Venture on the River Valley property. Under the terms of the joint venture agreement, Implats can earn up to a 60% interest in the project by funding $6 million of exploration expenditures and making cash payments of $255,000 over a period of five years (Mustang Minerals Corp., News Release, June 17, 2002 and www.mustangminerals.com).

MUSTANG MINERALS CORP. – NAIRN AND HYMAN PROJECTS

Mustang Minerals Corp. acquired the Nairn and Hyman properties located approximately 20 km west of Sudbury. The properties cover gabbro sills, which are being evaluated for Ni-Cu-PGM mineralization similar to the discovery in Shakespeare Township by Ursa Major Minerals Incorporated. The Nairn property will also be evaluated for potential strike extension of the Worthington Offset Dyke.

Grab samples collected by Mustang at the Nairn property confirmed significant Ni-Cu-PGM mineralization at several locations. Samples returned nickel grades up to 1.99%, copper up to 2.24%, cobalt up to 0.22% and 0.78 g/t TPM. (www.mustangminerals.com and Mustang Minerals Corp., News Releases, October 09 and 22, 2002).

NAMEX EXPLORATIONS INCORPORATED

Namex explored for Ni-Cu-PGM and Au on five properties situated along the eastern and western rim of the Sudbury Basin. The properties are the Post Creek and the Woods Creek properties and the newly acquired Golden Pine, Terra Incognita and Black Creek properties. All five properties are a part of, or adjacent to, former mines.

The Post Creek Property consists of 35 claims covering 1520 acres, situated within Parkin and Norman townships. The claim group covers the inferred strike extension of the Whistle Offset Dike. Prior airborne magnetometer and electromagnetic surveys identified anomalous areas. Namex followed up the geophysical anomalies with soil geochemical surveys, resulting in significant signatures of base and precious metals over the inferred dike extension.

The Woods Creek Property consists of 56 claims covering 2240 acres, situated in Hyman Township, approximately 4 km southwest of the Sudbury Igneous Complex. The property includes both Sudbury Breccia and a Nipissing diabase sill; both considered favorable hosts for Cu-Ni-PGM mineralization. The sill underlies 50% of the property. The discovery of surface mineralization in the sill, along with ground magnetometer anomalies, indicates that the mineralization might continue to depth. Subsequent diamond drilling returned 23 feet of Ni-Cu-PGM mineralization within the highly altered and sheared diabase. Assays are pending.

The Golden Pine Property is a 38 claim unit, 1520-acre package located in Parkin Township. High grade Au mineralization was confirmed through reconnaissance mapping and sampling. The property is underlain by Archean dacitic metavolcanic rocks, a known host rock for gold mineralization. Disseminated Au mineralization has been identified associated with chloritization and quartz-carbonate veining, within crosscutting shear zones on the property.

The Terra Incognita Property consists of 41 claim units, 1640 acres, and is located adjacent to the south boundary of the Golden Pine Property. There is no outcrop exposure. A previous airborne electromagnetic survey had indicated the presence of 15 conductive anomalies. The anomalies coincide with magnetic anomalies and will be evaluated for gold and base metal mineralization.

The Black Creek Property is a 3790-acre package comprised of 94 claim units. They are contiguous with the west boundary of the Golden Pine and Terra Incognita properties. The property is underlain by a series of intermediate metavolcanic rocks. A preliminary study indicates the metavolcanic rocks exhibit favourable structure, geophysics and alteration, and they represent a favourable host for PGE, gold and base metals. A geochemical study of the till and soil identified several surface anomalies of gold and arsenic (O. Maki, Namex Explorations Incorporated, personal communication, 2002).

PACIFIC NORTH WEST CAPITAL CORP. AND ANGLO AMERICAN PLATINUM CORPORATION LIMITED (ANGLO PLATINUM) – RIVER VALLEY

Pacific North West Capital Corp. reported the results of a Mineral Resource Study recently completed on the River Valley PGM property, located 50 km northeast of Sudbury. The resource study was completed by independent consultants Derry, Michener, Booth and Wahl Consultants Limited (DMBW) and incorporates results of the recently completed 83 hole, Phase 5 diamond drilling program. With previous diamond drilling results, a total of 221 drill holes from the Dana Lake and Lismer's Ridge areas were incorporated into the study.

Using a 0.7 g/t Pd+Pt cutoff, DMBW estimates mineral resources of 18 053 000 t in the measured and indicated categories to contain 36 500 ounces Au, 199 900 ounces Pt and 589 600 ounces Pd. In addition, 5 383 000 t in the inferred category are estimated to contain 8600 ounces Au, 50 200 ounces Pt and 141 800 Pd. Total precious metal content in all categories is estimated at 1 026 500 ounces.

Surface exploration and diamond drilling to date has focused on the Dana North, Dana South and Lismer's Ridge areas. Anglo Platinum recently approved a Phase 6, $5.3 million exploration program to be carried out on the River Valley property commencing in mid-January 2003. The budget will facilitate the completion of an additional 40 000 m of diamond drilling. Several high priority, outcropping, mineralized PGM targets were identified at the end of 2002 along a 6-km long intrusive contact zone extending south from Lismer's Ridge. This contact zone will be a major focus of the 2003 drilling program.

Anglo Platinum can earn a 65% interest in the River Valley project by funding it to production (www.pfncapital.com and Pacific North West Capital Corp., News Release, October 17, 2002).

PACIFIC NORTH WEST CAPITAL CORP. AND ANGLO AMERICAN PLATINUM CORPORATION LIMITED (ANGLO PLATINUM) – AGNEW LAKE

In August 2002, Pacific North West Capital Corp. embarked on a 10 000 m diamond drilling program as part of a $1.25 million, Phase II exploration program on the Agnew Lake project, located 40 km west of Sudbury. The project is funded by Anglo Platinum, and Pacific North West Capital Corp. is the project operator. The Agnew Lake property is currently under option from Platinum Group Metals Inc. North West Capital Corp. can earn 50% of Platinum Group Metals' interest in the property.

The diamond drilling program was planned to commence with a 1500 m deep-drill-hole, targeted to test a significant gravity anomaly centered within the upper portion of the Agnew Lake Intrusion. The purpose of the deep hole is to determine the source of the gravity anomaly, obtain a detailed stratigraphic section, and test for mineralization in the vicinity of feeder zones of the intrusion. Additional diamond drilling will target known zones of PGE mineralization along the contact of the Agnew Lake Intrusion and geophysical targets not tested to date. Any targets generated by ongoing prospecting activities or from the deep drilling will also be tested. Results are pending.

Anglo Platinum can earn a 49.5% interest in the Agnew Lake Property by making $6.0 million in exploration expenditures by December 31st, 2004. Anglo Platinum can increase its interest in the property to 57% by completing a feasibility study, and to 60% by arranging a 100% project financing and bringing the project into commercial production (www.pfncapital.com and Pacific North West Capital Corp., News Release, August 15, 2002).

WALLBRIDGE MINING COMPANY LIMITED

Wallbridge Mining Company Limited identified a large embayment structure on its Windy Lake property, in the North Range of the SIC, that may represent a possible extension of the prolific Levack trend.

A nine-hole diamond drilling program defined the western boundary of the embayment structure. The structure remains open to the east, south and southwest. Exploration under the lake is being accomplished with the use of land-based diamond drills from shore. A large, highly conductive, off-hole anomaly was detected by a borehole electromagnetic survey in diamond drill hole WL-009. Modeling of the anomaly is under way and plans for follow-up test drilling are being finalized. Hole WL010, currently under way, is designed to test the contact and footwall down dip of WL-009. Land-based drilling will continue into the winter of 2002-2003.

Wallbridge, in conjunction with diamond drilling engineers, has developed a plan to construct specially engineered wooden platforms to create stable pads onto which drills will be lowered by helicopters. This approach to ice drilling will significantly extend the drilling season and provide greater safety by eliminating the need to construct an extensive network of ice roads.

Wallbridge has signed a contract to bring seven additional drills to Windy Lake this winter (2002-2003). Contracts have also been signed with an engineering firm with expertise in ice construction and an aviation company that will supply a helicopter to transport the drills onto ice pads. Diamond drilling under Windy Lake is expected to continue from land and ice until at least the second quarter of 2003.

Lonmin Plc on behalf of the Sudbury Joint Venture is funding exploration of the Windy Lake property. A planned expenditure of $1.6 million for Windy Lake has been approved for the next budget period, commencing October 1, 2002 (www.wallbridgemining.com and Wallbridge Mining Company Limited, News Releases, October 1 and December 12, 2002).

PLATINUM GROUP METALS LIMITED

Platinum Group Metals Limited explored for Pt, Pd, and Au on three separate claim groups comprising the Western Sudbury Basin Project, totalling 1984 ha. The groups include the Levack, Windy Lake and Cascaden-Ministic properties, under option from Arcata Resources Corporation, Anglo American Platinum Corporation Limited, and Pacific North West Capital Corporation.

The Levack Property is located 1 km west of the FNX Mining Corporation McCreedy West Property. A ground magnetometer survey was completed and a review of the regional gravity data and geological setting indicate the potential for a previously unmapped Offset Dike. Sudbury Breccia also occurs on the property. Over 200 km of detailed airborne magnetic and airborne electromagnetic surveys was completed. This data will be used to identify targets for nickel-copper sulphides and associated PGE mineralization.

The 9000 ha Agnew Lake Property is situated 60 km southwest of Sudbury. Phase 1 of a $1.18 million dollar surface exploration program was completed, which included detailed prospecting and mapping within the central part of the Agnew Lake intrusion. This work resulted in the identification of several zones of PGE and Au mineralization along the contact of the Agnew Lake Intrusion. Subsequent diamond drilling was done to test the zones of mineralization (Platinum Group Metals Limited, press release, August 22, 2002).

GRENVILLE GOLD CORPORATION

During 2002, Grenville Gold Corporation acquired over 5000 ha in Parkman, Wyse, and McAuslan townships to investigate kimberlite potential. The property lies within the Lake Timiskaming Structural Zone, host to several diamondiferous kimberlite bodies.

Highly anomalous concentrations of kimberlite indicator minerals in alluvium samples were recovered from 3 creeks draining the property. Over 6600 kimberlite indicator minerals were recovered in one 9.8 kg sample. Microprobe

analysis results are consistent with a proximal diamodiferous kimberlite source (Grenville Gold Corporation, press release, July 11, 2002).

JML RESOURCES LIMITED

The Marten River Diamond project of JML Resources Limited is located approximately 55 km north of North Bay in the Lake Timiskaming Structural Zone. The claim package covers over 39 000 ha, and is situated roughly 80 km south of known diamondiferous kimberlite pipes found near New Liskeard. The project includes a joint venture with Falconbridge Limited on approximately 20% of the property.

An extensive exploration program consisting of diamond drilling, geophysics, prospecting, structural analysis, regional till sampling, and microprobe analysis was carried out this past year (2002).

Interpretation of both regional and detailed airborne magnetic surveys, along with the correlation of data from historical sampling and microprobe work by Falconbridge Limited, resulted in the definition of kimberlite targets. Also, high kimberlite indicator mineral counts and good quality garnet geochemistry were found within till samples, with distinct kimberlite indicator mineral dispersion trains and favourable magnetic features.

An additional 20 kimberlite drill targets have been identified. Seven diamond drill holes have been completed to date to test the identified targets (JML Resources Limited, press release, November 19, 2002).

TRES-OR RESOURCES LIMITED

Tres-Or Resources Limited controls the Temagami Diamond Claim property and the Temagami North option. The property contains 2500 contiguous claim units, covering roughly 46 000 ha. Of this, 1626 claim units are under option to Rhonda Corporation.

Tres-Or Resources Limited completed a 10 000 line-km airborne magnetic survey over its Temagami Diamond Claim property. Discrete magnetic anomalies were identified that indicated potential kimberlite pipes and structural features that may influence kimberlite emplacement. Subsequent regional till sampling focused on targets outlined by the magnetic survey. Four distinct kimberlite indicator mineral dispersion trains were found in different parts of the property. A more detailed 650 line-km airborne magnetic and electromagnetic survey was then conducted over the targeted areas.

The Temagami North property is under option from Rock Resources Incorporated. It is comprised of 795 contiguous claim units, covering 12 800 ha. Ground geophysical work was completed, revealing discrete circular magnetic targets. Follow-up sediment sampling was undertaken in order to identify potential kimberlite sources (Tres-Or Resources Limited, press release, November 18, 2002).

TEMEX RESOURCES CORPORATION

Temex Resources Corporation's major projects include the Wilson Lake Diamond Project and the Eagle Rock Base Metal Project.

The Wilson Lake Diamond Project consists of 2309 claim units, broken into 18 distinct claim groups, and extends through 16 townships in the Temagami area. All claim groups are within 25 km of Highway 11. Temex Resources Corporation conducted till geochemical studies, photo interpretation, ground geophysics, and prospecting. Documented mineral occurrences on the claim groups include gold, copper, nickel, molybdenum, zinc and lead associated with Archean metavolcanic rocks. Minor amounts of nickel, cobalt, copper and silver associated with Nipissing Diabase Intrusions have been identified as well. Forty circular magnetic anomalies have been targeted for further exploration.

The Eagle Rock Base Metal Project is situated 35 km north of River Valley. It contains 144 continuous claims. Exploration in 2002 involved Max-Min and magnetometer surveys, mapping, stripping, trenching and sampling (Temex Resources Corporation, press release, February 19, 2003).

TEARLACH RESOURCES LIMITED

Tearlach Resources Limited conducted a significant amount of grass roots exploration on its "Mystery Offset Dike" property in Lorne Township. This property is approximately 6 km west of the Inco Limited Totten Mine that is hosted by the Worthington Offset Dike of the Sudbury Igneous Complex. In 2001, local prospector T. Poupore located several Ni-Cu occurrences that had been trenched in around 1900 by the Algoma Nickel Company.

Following a ground magnetic geophysical survey, Tearlach conducted a program of stripping followed by an 11-hole, shallow diamond drilling program. Stripping revealed various zones of up to 2 m in width of massive, yet separate, vein-like structures of chalcopyrite and pyrrhotite. Zones of variably disseminated chalcopyrite with pyrrhotite and minor gersdorffite (NiAsS) are prevalent adjacent to the vein-like structures.

Tearlach reported similar mineralization is most of the diamond drill holes (Tearlach Resources Limited, press release, October 25, 2002).

The company also acquired a significant land position on the Foy Offset Dike in Foy Township.

FLAG RESOURCES (1985) LIMITED

Flag Resources (1985) Limited completed detailed mineralogical studies of hydrothermally altered quartz arenites and sulphides from the Cobalt Hill Co-Cu-Au occurrence in Mackelcan Township. These studies demonstrated that salinity and temperature of hydrothermal fluids that crystallized quartz veins and pyrite at Cobalt Hill were comparable to late magmatic fluids of the Sudbury Igneous Complex. The latter is characterized by the footwall-copper veins structures in the North Range of the Sudbury Igneous Complex (E.S. Schandl, Department of Geology, University of Toronto, unpublished report, 2002).

Flag also completed a single, 1065 feet deep diamond drill hole on the Rathbun Ni-Cu-PGE occurrence in Rathbun Township. Mineralization at this occurrence is hosted in a fine-grained noritic gabbro. Assay results were pending at the time of writing (Flag Resources (1985) Limited, press release, September 5, 2002).

Table 4. Exploration activity in the Sudbury Resident Geologist District in 2002 (keyed to Figure 2).

Abbreviations

AEM ..... Airborne electromagnetic survey
AM ..... Airborne magnetic survey
ARA ..... Airborne radiometric survey
Beep ..... Beep Mat survey
Bulk ..... Bulk sampling
DD ..... Diamond drilling
DDH ..... Diamond drill hole(s)
DGP ..... Down-hole geophysics
GC ..... Geochemical survey
GEM ..... Ground electromagnetic survey
GL ..... Geological Survey
GM ..... Ground magnetic survey
GRA ..... Ground radiometric survey
Grav ..... Gravity survey
HLEM ..... Horizontal loop electromagnetic survey
HM ..... Heavy mineral sampling
IM ..... Industrial mineral testing and marketing
IP ..... Induced polarization survey
Lc ..... Linecutting
Met ..... Metallurgical testing
OD ..... Overburden drilling
ODH ..... Overburden drill hole(s)
PEM ..... Pulse electromagnetic survey
PGM ..... Platinum group metals
Pr ..... Prospecting
RES ..... Resistivity survey
Samp ..... Sampling (other than bulk)
Seismic ..... Seismic survey
SP ..... Self-potential survey
Str ..... Stripping
Tr ..... Trenching
UG ..... Underground exploration/development
VLEM ..... Vertical loop electromagnetic survey
VLFEM ..... Very low frequency electromagnetic survey

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
1	Aylmer	Taillefer, E.	2001-2002	GL, Tr	2.24489	SP006
2	Belfast	Adair, A.	2001-2002	Pr	2.24110	SP002
3	Blezard	Wallbridge Mining Co. Ltd.	2002	GL	2.24233	SP004
4	Blyth	Bazinet, B.	2002	Lc, GL	2.24167	SP001
5	Bowell	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.24694	SP009
6	Capreol	Falconbridge Ltd.	2000-2002	DD, Samp	2.23227	SP006
7	Cascaden	Ruza, J.	2002	Lc, GM	2.23228	SP006
8	Dana	Aquiline Resources Inc.	2002	IP, GM	2.22874	SP019
8	Dana	Pacific North West Corp.	2002	GL	2.24354	SP024
8	Dana	Pacific North West Corp.	2002	GL, Samp, Str	2.24281	SP025
8	Dana	Pacific North West Corp.	2001-2002	DD, Samp	2.24604	SP029
9	Davis	Jackson, G.	2002	Pr	2.23675	SP068
10	Delhi	Explorers Alliance Corp.	2002	Samp	2.23814	SP001
11	Denison	Consolidated Venturex	2002	DD, Samp	2.24665	SP004
12	Drury	Wallbridge Mining Co. Ltd., Mustang Minerals Corp.	2002	Samp, GL, IP	2.22852	SP008
12	Drury	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23016	SP009
12	Drury	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23880	SP010
12	Drury	Wallbridge Mining Co. Ltd.	2002	DD, Samp	2.24796	SP011
13	Dryden	Fielding, R. & Fielding, T.	2000-2002	Pr, Str, Samp	2.24220	SP005
14	Ermatinger	Wallbridge Mining Co. Ltd.	2001-2002	GEM	2.22998	SP010
14	Ermatinger	Champion Bear Res. Ltd.	2002	DD	2.23275	SP011
14	Ermatinger	Champion Bear Res. Ltd.	2002	GL, Lc, GM, Str, Tr	2.23673	SP012

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
14	Ermatinger	Champion Bear Res. Ltd.	2002	DD	2.23652	SP013
14	Ermatinger	Wallbridge Mining Co. Ltd.	2002	DD, Samp	2.24493	SP014
15	Falconbridge	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.24274	SP033
16	Ferris (west)	Tarmagon Aggregates	2001-2002	Bulk	2.24032	SP003
17	Foster	Naples, K.	2001-2002	GC, Lc, Samp	2.23344	SP018
17	Foster	Naples, K.	2001-2002	Str, Samp	2.23741	SP019
18	Foy	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.22934	SP013
18	Foy	Falconbridge Ltd.	2001-2002	GEM, Lc	2.24285	SP015
18	Foy	Wallbridge Mining Co. Ltd.	2002	IP, Lc	2.24472	SP016
19	Garson	Wallbridge Mining Co. Ltd.	2002	Samp	2.23781	SP004
20	Gibbons	Mustang Minerals Corp.	2001-2002	Lc, GM	2.22957	SP011
21	Gooderham	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.22922	SP003
21	Gooderham	JML Resources Ltd., Mustang Minerals Corp.	2000-2002	AM, GC, Samp	2.23293	SP004
22	Gough	Pacific North West Corp.	2001-2002	IP, GM, Lc	2.22850	SP009
23	Graham	Wallbridge Mining Co. Ltd., Falconbridge Ltd.	2001-2002	DD	2.22454	SP006
24	Hammell	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.23633	SP003
24	Hammell	Mustang Minerals Corp.	2002	DD	2.24259	SP004
25	Hart	Champion Bear Res. Ltd.	2002	DD, Samp	2.24119	SP015
26	Harty	Inco Ltd.	2001-2002	Lc, GM, VLFEM	2.23657	SP004
27	Hess	Champion Bear Res. Ltd.	2001-2002	GL	2.22895	SP026
27	Hess	Champion Bear Res. Ltd.	2002	AM, AEM	2.24242	SP030
27	Hess	Sutcliffe, R.	2002	GC, Lc	2.23759	SP031
27	Hess	Northern Explorers Ltd.	2002	Bulk	2.24412	SP032
28	Hobbs	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.23924	SP001
29	Hutton	Inco Ltd.	2002	GEM	2.23816	SP048
29	Hutton	Barry, G.	2002	Str, Tr	2.24403	SP049
30	Hyman	Mustang Minerals Corp.	2002	GL, Samp	2.24458	SP003
31	Joan	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.22992	SP001
32	Kelly	Goldwright Expl'n Inc.	2002	Tr, Str	2.22761	SP019
33	Kitchener	Brady, J.	2002	Str	2.24362	SP003
34	Laura	Maki, R. & Maki, A.	2002	GEM, GM, Lc	2.24450	SP002
35	Leinster	Inco Ltd.	2002	GEM, DD	2.23714	SP003
36	Levack	Ruza, J.	2002	GM, Lc	2.23302	SP006
37	Loughrin	Aquiline Resources Inc.	2002	GM, IP, Lc	2.23745	SP015
37	Loughrin	Mustang Minerals Corp.	2001-2002	GL, Samp	2.24185	SP016
38	Mackelcan	Flag Resources Ltd.	2002	GL	2.23279	SP020
38	Mackelcan	Flag Resources Ltd.	2002	GL	2.23350	SP023

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
38	Mackelcan	Flag Resources Ltd.	2002	GL	2.24456	SP024
39	MacLennan	Wallbridge Mining Co. Ltd.	2002	Lc, Mag	2.24270	SP023
40	Mattawan	MacDonnell, A.	2002	Lc	2.23695	SP024
41	May	Patrie, D.	2002	Tr, Samp	2.23713	SP004
42	McConkey	Diatreme Expl'ns Inc.	2002	AM	2.24223	SP019
43	McKim	Wallbridge Mining Co. Ltd.	2002	GL	2.23659	SP001
44	Milne	Claim Lake Resources Inc.	2002	Lc, GM	2.24417	SP003
44	Milne	Temex Resources Ltd.	2002	AM	2.24459	SP004
45	Mongowin	Stringer, E.	2002	Pr, Str	2.24041	SP024
46	Nairn	Barry, A.	2001-2002	GM, Samp, Lc	2.23901	SP002
47	Neelon	Leo Alaire & Sons Ltd.	2001-2002	GL, Samp	2.23321	SP009
47	Neelon	Leo Alaire & Sons Ltd.	2001-2002	Bulk	2.24415	SP011
48	Norman	Barry, A.	2002	Str	2.24566	SP037
48	Norman	Wallbridge Mining Co. Ltd.	2002	Str, Tr	2.23954	SP038
48	Norman	Barry, A.	2002	GL, GM, Lc	2.24868	SP039
49	Parkin	Crowflight Minerals Inc.	2001-2002	AM, AEM	2.22833	SP072
49	Parkin	Brady, J.	2001-2002	GM, Samp	2.23352	SP073
50	Parkman	Marmont, C.	2002	GC, GL	2.24697	SP010
50	Parkman	Marmont, C.	2002	GC, GL	2.24388	SP011
51	Porter	Ursa Major Minerals	2002	DD, Samp	2.24731	SP010
52	Rathbun	Flag Resources Ltd.	2002	DD	2.23707	SP051
52	Rathbun	Fielding, R. & Fielding, T.	2002	Str, Samp	2.24221	SP052
52	Rathbun	Flag Resources Ltd.	2002	DD	2.24127	SP053
53	Scadding	Brady, J.	2002	Pr, SP	2.23907	SP053
54	Shakespeare	Ursa Major Minerals	2002	GEM, GL	2.24685	SP011
54	Shakespeare	Pacific North West Corp.	2001-2002	DD, Samp	2.24845	SP012
55	Sisk	JML Resources Ltd., Mustang Minerals Corp.	2002	GC, Samp	2.24363	SP001
56	Stralak	Leclaire, A. & Leclaire, R.	2002	Pr, Samp	2.23469	SP005
57	Tofflemire	Agricultural Mineral Prosectors Inc.	2002	Tr	2.24914	SP003
58	Trill	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23349	SP005

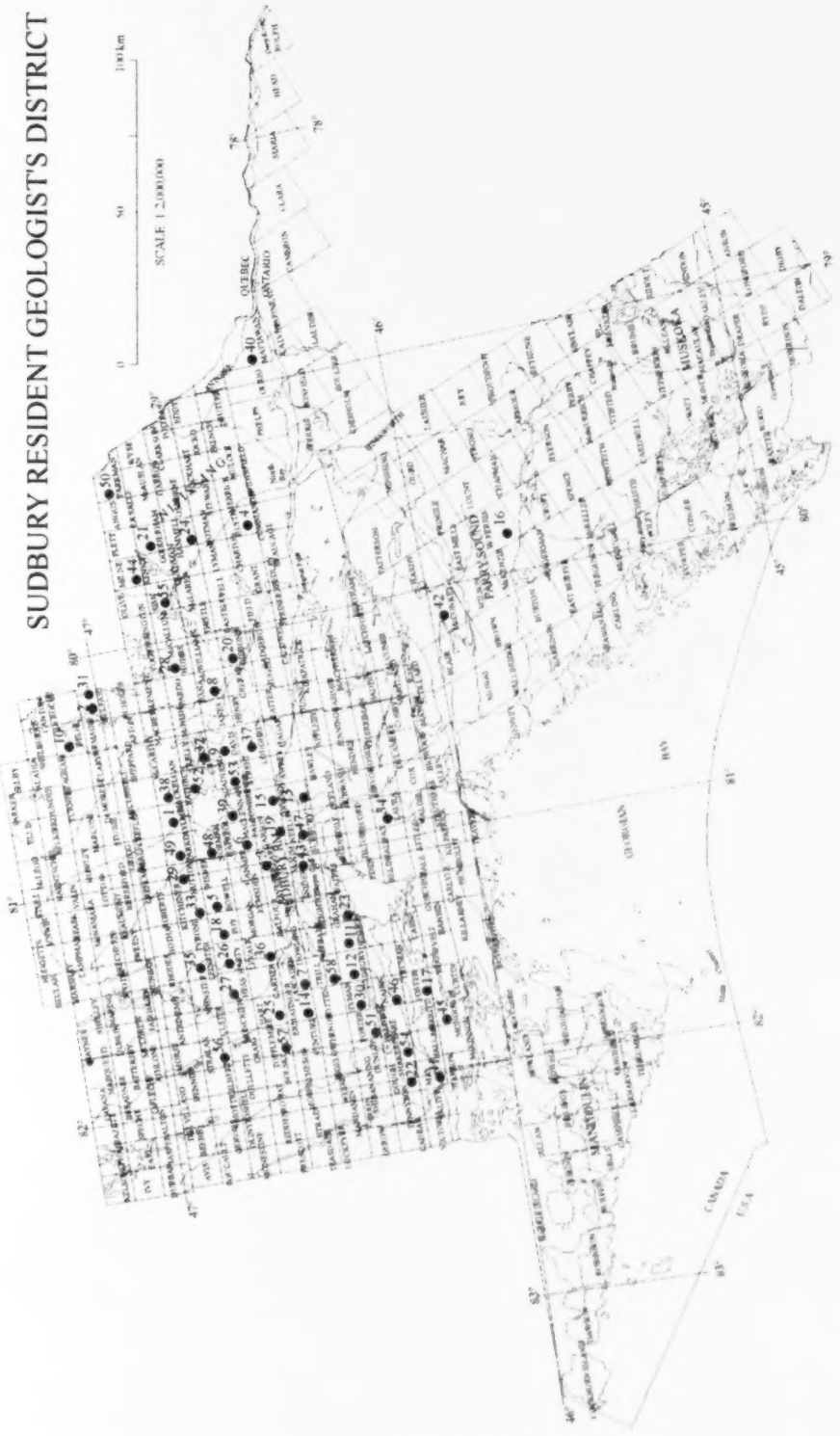

Figure 2. Exploration activity in the Sudbury District in 2002.

Table 5. Assessment files received in the Sudbury District in 2002.

Abbreviations

AEM ..... Airborne electromagnetic survey	IP ..... Induced polarization survey
AM ..... Airborne magnetic survey	Lc ..... Linecutting
ARA ..... Airborne radiometric survey	Met ..... Metallurgical testing
Beep ..... Beep Mat survey	OD ..... Overburden drilling
Bulk ..... Bulk sampling	ODH ..... Overburden drill hole(s)
DD ..... Diamond drilling	PEM ..... Pulse electromagnetic survey
DDH ..... Diamond drill hole(s)	PGM ..... Platinum group metals
DGP ..... Down-hole geophysics	Pr ..... Prospecting
GC ..... Geochemical survey	RES ..... Resistivity survey
GEM ..... Ground electromagnetic survey	Samp ..... Sampling (other than bulk)
GL ..... Geological Survey	Seismic ..... Seismic survey
GM ..... Ground magnetic survey	SP ..... Self-potential survey
GRA ..... Ground radiometric survey	Str ..... Stripping
Grav ..... Gravity survey	Tr ..... Trenching
HLEM ..... Horizontal loop electromagnetic survey	UG ..... Underground exploration/development
HM ..... Heavy mineral sampling	VLEM ..... Vertical loop electromagnetic survey
IM ..... Industrial mineral testing and marketing	VLFEM ..... Very low frequency electromagnetic survey

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Attlee	O'Shaunessy, J. & M. Paterson	2001	VLFEM, GC, GM	2.22746	SP003
Aylmer	Taillefer, E.	2001-2002	GL, Tr	2.24489	SP006
Beaumont	Platinum Group Metals Ltd.	2001	GL, Samp	2.23499	SP001
Belfast	Adair, A.	2001-2002	Pr	2.24110	SP002
Blezard	Wallbridge Mining Co. Ltd.	2002	GL	2.24233	SP004
Blyth	Bazinet, B.	2002	Lc, GL	2.24167	SP001
Boon	Mustang Minerals Corp.	2001	IP	2.22104	SP022
Boon	Mustang Minerals Corp.	2001	GL, Samp, Lc, Tr	2.23274	SP023
Bowell	Aurora Platinum Corp.	2000-2001	AEM, AM, Gl, Pr, Samp	2.23262	SP007
Bowell	Aurora Platinum Corp. Falconbridge Ltd.	2000-2001	Pr, Samp	2.23661	SP008
Butler	Enviro Industrial Technologies Ltd.	2000	Met, DD	2.22580	SP020
Capreol	Wallbridge Mining Co. Ltd.	2001	DD	2.22009	SP005
Capreol	Falconbridge Ltd.	2000-2002	DD, Samp	2.23227	SP006
Capreol	Wallbridge Mining Co. Ltd., Falconbridge Ltd.	2001	DD, Samp	2.23843	SP007
Cascaden	Wallbridge Mining Co. Ltd.	2001	DD	2.22241	SP005
Cascaden	Ruza, J.	2002	Lc, GM	2.23228	SP006
Casimir	Kresz, D.	1999-2000	GL, Str	2.22041	SP005
Craig	Stralak Resources Inc.	1999	Str, Tr, DD, Samp	2.22297	SP006
Creighton	Wallbridge Mining Co. Ltd., Falconbridge Ltd.	2000-2001	DD	2.22454	SP004
Crerar	Mustang Minerals Corp.	2000-2001	DD, Samp	2.23475	SP009

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Crerar	Mustang Minerals Corp.	2000-2001	GL, GC	2.23599	SP010
Curtin	Brune D. & R. Stringer	2000-2001	Met	2.22854	SP024
Curtin	William Day Construction Ltd.	2001	Samp, IM	2.22173	SP025
Curtin	Brune, D.	2001	Tr, Samp	2.23100	SP026
Dana	Aquiline Resources Inc.	2002	IP, GM	2.22874	SP019
Dana	Mustang Minerals Corp.	2001	IP, GM, Lc	2.22587	SP020
Dana	Pacific North West	2000	DD	2.22916	SP021
Dana	Mustang Minerals Corp.	2001	Lc, GM	2.22587	SP022
Dana	Pacific North West	2000	DGP	2.24255	SP023
Dana	Pacific North West	2002	GL	2.24354	SP024
Dana	Pacific North West	2002	GL, Samp, Str	2.24281	SP025
Dana	Mustang Minerals Corp.	2001	GC, CL, Str	2.24282	SP026
Dana	Pacific North West	2000	IP, RES	2.24250	SP027
Dana	Pacific North West	2000	IP, GM, Lc	2.24256	SP028
Dana	Pacific North West	2001-2002	DD, Samp	2.24604	SP029
Davis	Goldwright Exploration Inc.	2001	DD, Samp	2.22531	SP065
Davis	Douglas, W.	2000	Samp, Str	2.22324	SP066
Davis	Platinum Group Metals Ltd.	2001	Samp, GL, Str	2.23315	SP067
Davis	Jackson, G.	2002	Pr	2.23675	SP068
Delhi	Explorers Alliance Corp.	2002	Samp	2.23814	SP001
Denison	Consolidated Venturex	2001	Samp, GL, Pr, Lc, GM	2.23111	SP003
Denison	Consolidated Venturex	2002	DD, Samp	2.24665	SP004
Dieppe	Mustang Minerals Corp.	2001	Samp, GL, Lc	2.23300	SP016
Drury	Wallbridge Mining Co. Ltd, Mustang Minerals Corp.	2002	Samp, GL, IP	2.22852	SP008
Drury	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23016	SP009
Drury	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23880	SP010
Dryden	Fielding, R. & T. Fielding	2000-2002	Pr, Str, Samp	2.24220	SP005
Dunlop	Pacific North West Capital Corp.	2000	Pr, Samp, Str, IP	2.22488	SP005
Ermatinger	Wallbridge Mining Co. Ltd.	2001-2002	GEM	2.22998	SP010
Ermatinger	Wallbridge Mining Co. Ltd.	2002	DD	2.23275	SP011
Ermatinger	Champion Bear Resources Ltd.	2002	GL, Lc, GM, Str, Tr	2.23673	SP012
Ermatinger	Wallbridge Mining Co. Ltd.	2002	DD	2.23652	SP013
Ermatinger	Wallbridge Mining Co. Ltd.	2002	DD, Samp	2.24493	SP014
Falconbridge	Millstream Mines Ltd.	2000-2001	GM, GEM, IP, AEM, DD, Samp	2.21614	SP031
Falconbridge	Wallbridge Mining Co. Ltd.	2001	Pr, Samp	2.22148	SP032
Falconbridge	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.24274	SP033
Ferris	Tarmagon Aggregates	2001-2002	Bulk	2.24032	SP003
Foster	Naples, K.	2001-2002	Str, Samp	2.23741	SP019
Foy	Falconbridge Ltd.	2000-2001	GL, DD, Samp	2.22447	SP011
Foy	Wallbridge Mining Co. Ltd.	2001	GL, Pr	2.22397	SP012

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Foy	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.22934	SP013
Foy	Aurora Platinum Corp.	2001	Pr, Samp	2.24193	SP014
Foy	Falconbridge Ltd.	2001-2002	GEM, Lc	2.24285	SP015
Foy	Wallbridge Mining Co. Ltd.	2002	IP, Lc	2.24472	SP016
Franklin	Anthony, R.	2001	Str	2.22166	SP003
Garson	Wallbridge Mining Co. Ltd.	2002	Samp	2.23781	SP004
Gerow	Mustang Minerals Corp.	1999-2001	GL, GC	2.22334	SP014
Gerow	Mustang Minerals Corp.	2000-2001	AM, AEM	2.23330	SP015
Gervais	Kelly, J.	2000-2001	Pr	2.22506	SP001
Gibbons	Mustang Minerals Corp.	2001-2002	Lc, GM	2.22957	SP011
Gibbons	Impala Platinum Holdings, Mustang Minerals Corp.	2001	Lc, IP	2.22594	SP012
Gooderham	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.22992	SP003
Gooderham	JML Resources Ltd., Mustang Minerals Corp.	2000-2002	AM, GC, Samp	2.23293	SP004
Gough	Pacific North West Capital Corp.	2001	IP, GM, Lc	2.23103	SP008
Gough	Pacific North West Capital Corp.	2001-2002	IP, GM, Lc	2.22850	SP009
Graham	Wallbridge Mining Co. Ltd., Falconbridge Ltd.	2001-2002	DD	2.22454	SP006
Hammell	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.23633	SP003
Hammell	Mustang Minerals Corp.	2002	DD	2.24259	SP004
Hart	Champion Bear Resources Ltd.	2002	DD, Samp	2.24119	SP015
Harty	Inco Ltd.	2001-2002	Lc, GM, VLFEM	2.23657	SP004
Harty	Inco Ltd.	2001	Pr	2.23656	SP005
Hess	Champion Bear Resources Ltd.	2001-2002	GL	2.22895	SP026
Hess	Moncrieff Resources Inc.	2001	Lc, VLFEM	2.22433	SP027
Hess	Champion Bear Resources Ltd.	2001	IP	2.22048	SP028
Hess	Northern Explorers Ltd.	2001	Samp	2.23625	SP029
Hess	Champion Bear Resources Ltd.	2002	AM, AEM	2.24242	SP030
Hess	Sutcliffe, R.	2002	GL, Lc	2.23759	SP031
Hess	Northern Explorers Ltd.	2002	Bulk	2.24412	SP032
Hobbs	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.23924	SP001
Hutton	Barry, G.	2001	Str, Tr, Samp	2.22310	SP047
Hutton	Inco Ltd.	2002	GEM	2.23816	SP048
Hutton	Barry, G.	2002	Str, Tr	2.24403	SP049
Janes	Pacific North West Capital Corp.	2001	GL, IP, Lc, Samp	2.22658	SP023
Janes	Pacific North West Capital Corp.	2000	DGP, GRA, IP	2.22320	SP024
Janes	Pacific North West Capital Corp.	2001	GM, IP	2.22545	SP025

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Janes	Pacific North West Capital Corp.	2001	DD, Samp, GL	2.22235	SP026
Joan	JML Resources Ltd., Mustang Minerals Corp.	2002	AM	2.22992	SP001
Kelly	Goldwright Exploration Inc.	2002	Tr, Str	2.22761	SP019
Laura	Maki, R. & A. Maki	2000-2001	Pr, Lc, GM, Samp	2.23277	SP001
Laura	Maki, R. & A. Maki	2002	GEM, GM, Lc	2.24450	SP002
Leinster	Inco Ltd.	2002	GEM, DD	2.23714	SP003
Levack	Ruza, J.	2002	GM, Lc	2.23302	SP006
Loughrin	Platinum Group Metals Ltd.	2001	GL, GC	2.22449	SP011
Loughrin	Platinum Group Metals Ltd.	2000	GL, Samp	2.23345	SP012
Loughrin	Platinum Group Metals Ltd.	2000	GL, Samp	2.23347	SP013
Loughrin	Platinum Group Metals Ltd.	2000	GL, Samp	2.23346	SP014
Loughrin	Aquiline Resources Inc.	2002	IP, Lc, GM	2.23745	SP015
Loughrin	Mustang Minerals Corp.	2001-2002	GL, Samp	2.24185	SP016
Lount	Bain, R.	2001	Lc, GM, Pr, Samp	2.23616	SP035
Mackelcan	Flag Resources Ltd.	2001	DD, Samp	2.22477	SP018
Mackelcan	Flag Resources Ltd.	2001	DD	2.22199	SP019
Mackelcan	Flag Resources Ltd.	2002	Samp	2.23279	SP020
Mackelcan	Flag Resources Ltd.	2002	GL	2.23283	SP021
Mackelcan	Flag Resources Ltd.	2000-2002	DD, Samp	2.23055	SP022
Mackelcan	Flag Resources Ltd.	2002	GL	2.23350	SP023
MacLennan	Wallbridge Mining Co. Ltd.	2002	Lc, GM	2.24270	SP023
Marquette	Leclair, A.	2001	GL, Str, Samp	2.22155	SP005
Marquette	Leclair, A. & R. Leclair	2001	Pr, Samp	2.24206	SP006
Mattawan	BMCTGB Ltd.	2001	GM, VLFEM, Lc	2.23266	SP023
Mattawan	MacDonnell, A.	2002	Lc	2.23695	SP024
May	Patrie, D.	2002	Tr, Samp	2.23713	SP004
McConkey	Diatreme Explorations Inc.	2002	AM	2.24223	SP019
McKim	Wallbridge Mining Co. Ltd.	2002	GL, Samp	2.23659	SP001
McWilliams	Mustang Minerals Corp.	2001	DD, GC, Samp	2.22748	SP005
McWilliams	Mustang Minerals Corp.	2001	Pr, GM	2.22585	SP006
Milne	Claim Lake Resources Inc.	2002	Lc, GM	2.24417	SP003
Mongowan	Garson Resources Ltd.	2001	DD	2.23090	SP023
Mongowan	Stringer, E.	2002	Pr, Str	2.24041	SP024
Nairn	Barry, A.	2001-2002	GM, Samp, Lc	2.23901	SP002
Neelon	Leo Alaire & Sons Ltd.	2001-2002	GL, Samp	2.23321	SP009
Neelon	LDG Construction Co. Ltd.	2001	DD	2.23559	SP010
Neelon	Leo Alaire & Sons Ltd.	2001-2002	Bulk	2.24415	SP011
Norman	Barry, A.	2001	Str, Tr, DD, Pr	2.22452	SP035
Norman	Wallbridge Mining Co. Ltd.	2001	Lc, GL, Pr	2.22299	SP036
Norman	Barry, A.	2002	Str	2.24566	SP037
Norman	Platinum Group Metals Ltd.	2000	GL, Samp	2.23385	SP003

Township or Area	Company Name	Year	Type of Work	AFRO Number	Resident Geologist Office File Designation
Parkin	Champion Bear Resources Ltd.	2001	DD, Samp	2.22271	SP067
Parkin	Brady, J. & R. Charron, 1311870 Ontario Inc.	2001	Pr, Samp	2.22763	SP068
Parkin	Brady, J.	1999	Str	2.22816	SP069
Parkin	Brady, J.	2001-2002	Str	2.22822	SP070
Parkin	1311870 Ontario Inc.	2001	IM	2.22823	SP071
Parkin	Crowflight Minerals Inc.	2001-2002	AM, AEM	2.22833	SP072
Parkin	Brady, J.	2001-2002	VLFEM, GM, Samp	2.23352	SP073
Parkin	Boulard, V.	2001	Samp, Pr	2.23336	SP074
Parkman	Marmont, C. & R. Thomas	2000-2001	GL	2.22522	SP008
Parkman	Marmont, C. & R. Thomas	2001-2002	GL	2.24062	SP009
Phelps	Roy, T.	2001	Pr	2.23119	SP001
Rathbun	Flag Resources Ltd.	2001	DD	2.22087	SP050
Rathbun	Flag Resources Ltd.	2002	DD	2.23707	SP051
Rathbun	Fielding, R. & T. Fielding	2002	Samp, Str	2.24221	SP052
Rathbun	Flag Resources Ltd.	2002	DD	2.24127	SP053
Ryerson	McCarty, J.	2001	Pr	2.22259	SP013
Salter	Hall, M.	1999-2001	Pr, GM, Samp	2.21710	SP028
Scadding	Fielding, R.	2001	Pr, Samp, Str	2.22055	SP052
Shakespeare	Falconbridge Ltd., Ursa Major Minerals Inc.	2000	GL, IP, GM, Samp	2.23306	SP009
Shakespeare	Turcott, M.	2001	GL	2.23052	SP010
Shibananing	Brunne, D. & M. Turcott	2001	GC, Samp, Str	2.22741	SP008
Shibananing	Pacific North West Capital Corp., Platinum Group Metals Ltd.	2001	GL, Samp	2.23813	SP009
Sisk	JML Resources Ltd., Mustang Minerals Corp.	2002	GC, Samp	2.24363	SP001
Stralak	Leclair, A. & R. Leclair	2001	Lc	2.21993	SP004
Stralak	Leclair, A. & R. Leclair	2002	Pr, Samp	2.23469	SP005
Strathy	Webster, B.	2001	GL, Samp	2.21841	SP001
Street	Platinum Group Metals Ltd.	2001	GL, Samp, GC	2.22716	SP022
Tofflemire	Agricultural Mineral Prospectors Inc.	2001	Tr	2.22813	SP002
Trill	Wallbridge Mining Co. Ltd.	2002	GM, Lc	2.23349	SP005
Tyrone	Crowflight Minerals Inc.	2001	DD	2.23342	SP004
Tyrone	Crowflight Minerals Inc.	2001	AM	2.23339	SP005
Ulster	Brady, J.	2001	Pr	2.23253	SP021
Vogt	Gagnon, G. & R. Gagnon	2001	Pr, Samp	2.23566	SP002
Wisner	Falconbridge Ltd., Wallbridge Mining Co. Ltd.	2001	DD	2.22664	SP020

RESIDENT GEOLOGIST STAFF AND ACTIVITIES

In 2002, M. Cosec, District Geologist, and Acting District Support Geologists J. Wood, J. Stewart, and S.A. Beauchamp staffed the Sudbury District Geology office. Summer Experience Program students C. Marcil and J. Melanson ably provided assistance in the field and office.

Staff responded to approximately 1400 office inquiries and 1350 telephone inquiries. Requests included geological information on a variety of topics, including exploration activity, rock and mineral identification, recommendations for exploration, geological tours, and land value issues. A total of 28 property visit tours were given to clients (see Table 6 and Figure 3).

Table 6. Property visits conducted by the Sudbury District office in 2002.

Number (keyed to Figure 3)	Property / Occurrence	Township	Commodity
1	Hicks Quarry	McKim	trap rock
2	Shouinard Property	Butler	mica, garnet
3	Pacific North West Capital Corp.	Shibananing	PGE
4	Falconbridge Ltd. (Nickel Rim South)	MacLennan	Ni, Cu, PGE
5	Wallbridge Mining Company Ltd. *	Parkin	Ni, Cu, PGE
6	Patrie Property	Hyman	Ni, Cu, PGE
7	Brady Property	Hyman	Ni, Cu, PGE
8	Agnew Lake Mine	Hyman	hazard
9	Moose Mountain Mine	Hutton	ballast stone
10	FNX Mining Co. Ltd. (Whistle Offset)	Norman	Ni, Cu, PGE
11	Falconbridge Ltd. (Rapid River Occurrence)	Wisner	Ni, Cu, PGE
12	Flag Resources (1985) Ltd.	Rathbun	Ni, Cu, PGE
13	Manitoulin Island	various	limestone
14	Scadding Mine *	Scadding	Au
15	Tearlach Resources Ltd. *	Lorne	Ni, Cu, PGE
16	Ursa Major Minerals Inc.	Shakespeare	Ni, Cu, PGE
17	Norstar Mine	Davis	Cu, Au
18	Agricultural Mineral Prospectors Inc. *	Venturi	carbonatite
19	FNX Mining Co. Ltd. *	Denison	Ni, Cu, PGE
20	Rose Property	Afton	silica
21	Emerald Lake area	Scholes	trap rock
22	Low Water Lake area	Marquette, etc.	reconnaissance
23	Bardswich Occurrence	Hess	magnetite

* *Properties visited more than once*

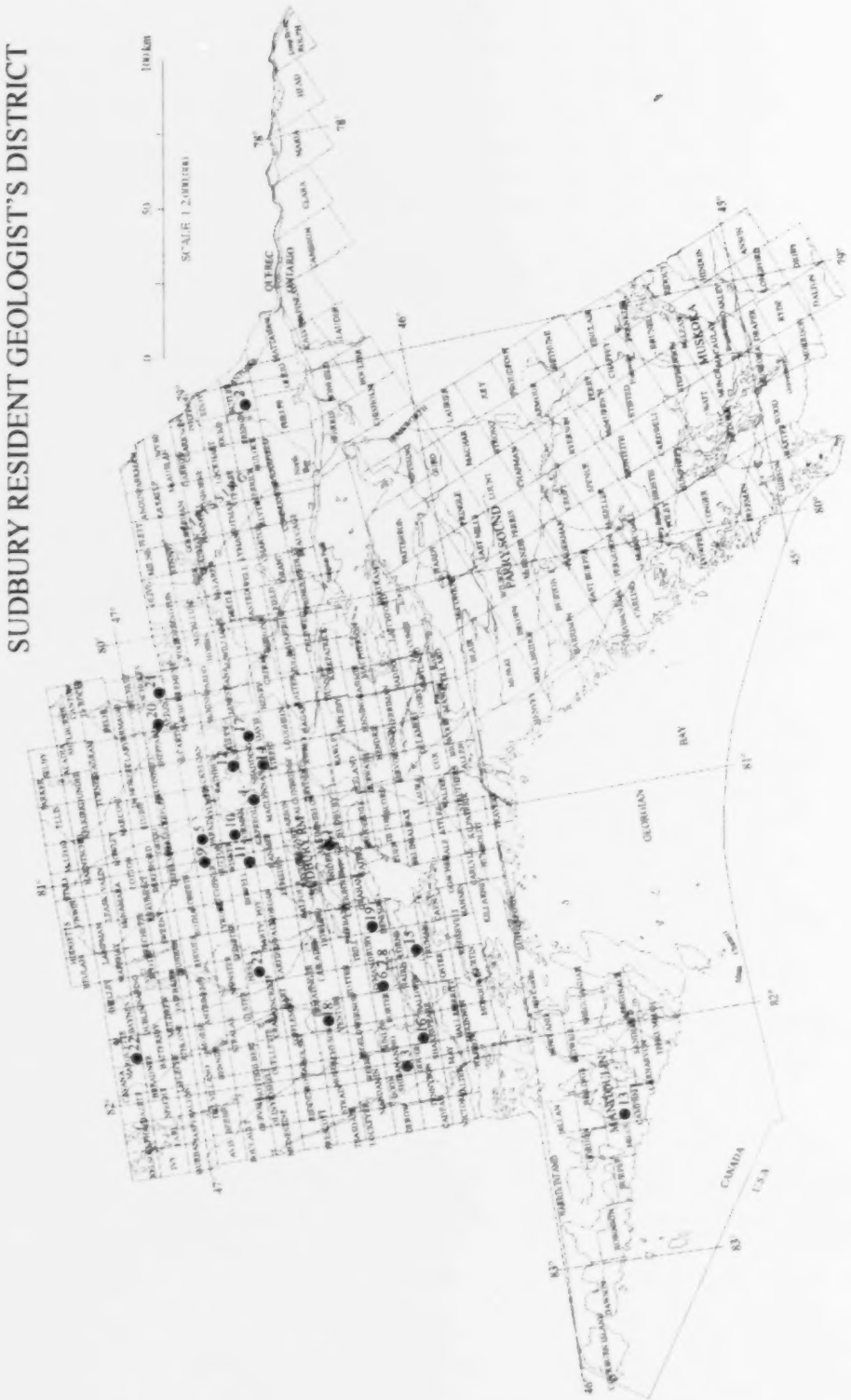

Figure 3. Property visits conducted by the Sudbury District office in 2002 (keyed to Table 6).

The District Geologist continued service as a councillor of the Association of Professional Geoscientists of Ontario as well as mineral sector representative on the area team of the Regional Economic Development Branch, Northern Development Division, MNDM. He also continued to provide input to the Proterozoic Working Group of the Ontario Geological Survey.

M. Cosec attended the annual Prospectors and Developers Association of Canada meeting in Toronto, the Canadian Geoscience Council - International Continental Drilling Program workshop in Sudbury, and presented a talk at the Ontario Exploration and Geoscience Symposium in Toronto.

The Honourable J. Wilson, Minister of Northern Development and Mines, was provided with a tour of an exploration diamond drilling program at the Falconbridge Limited Nickel Rim South property as part of Mining Week activities in June.

J. Stewart provided assistance to the Ministry of Northern Development and Mines corporate display at the Sudbury Gem and Mineral Show in July.

Field trips of the Sudbury Structure were organized for various groups and individuals during the year. These included earth science departments from the University of Kentucky, the University of Indiana, the University of Illinois, the California Institute of Technology, and McGill University.

Forty-three (43) entries were made into the Mineral Deposit Inventory (MDI) database.

See Tables 7 and 8 for listings of publications received and mineral deposits not being mined in the Sudbury District in 2002, respectively.

Table 7. Publications received by the Sudbury District Geologist office in 2002.

Title	Author	Type and Year of Publication
Exploring Manitoulin, 3rd. Ed.	Pearen, S. J.	University of Toronto Press, Toronto, 228p., 1992
Ontario's Vanished Villages	Brown, R.	Polar Bear Press, Toronto, 207p., 1999
Boosting the Bay	Steer, W.	North Bay and District Chamber of Commerce, 166p., 1994
The Skeptical Environmentalist: Measuring the Real State of the World	Lomborg, B.	Cambridge University Press, 515p., 2001
Law For Professional Engineers: Canadian and International Perspectives; 3rd ed.	Marston, D.L.	McGraw-Hill Ryerson, Toronto, 354 p., 1996
The Law and Business Administration in Canada; 9th ed.	Smyth, J. E., Soberman, D.A., and Easson, A.J.	Prentice Hall, Toronto, 820 p., 2001
Study Guide: The Law and Business Administration in Canada; 9th ed.	Gilles LeVasseur, J.L.	Prentice Hall, Toronto, 492 p., 2001
The Geology, Geochemistry, Mineralogy and Beneficiation of Platinum-Group Elements	Cabri, L. J.	CIM Special Volume 54, 852p.,2002
Better Known As Beaver Lake; An History of Lorne Township and Surrounding Area	Tapper, G.O. and Saarinen, O.W. (eds.)	Laurentian University Press, Sudbury, 337p., 1998
Canadian Mines Handbook 2002-2003	Giancola, D. (ed.)	Business Information Group, Don Mills, 624p., 2002
Building Stone Inventory of the Sudbury Resident Geologist's Area	Lacey, J. K.	Ontario Geological Survey, Open File Report 5721, 65p., 1989.
On the Structural Geology of the Southern Province between Sault Ste. Marie and Espanola, Ontario	Jackson, S. L.	Ontario Geological Survey, Open File Report 5995, 55p., 2001.

Title	Author	Type and Year of Publication
Precambrian Geology of Street Township, Southern and Grenville Provinces	Easton, R.M., Murphy, E.I.	Ontario Geological Survey, Open File Report 6078, 149p., 2002
Report of Activities 2001, Resident Geologist Program, Red Lake Regional Resident Geologist Report: Red Lake and Kenora Districts	Lichtblau, A., Hinz, P., Ravnaas, C., Storey, C.C., Kosloski, L., and Raoul, A.	Ontario Geological Survey, Open File Report 6079, 125p., 2002
Report of Activities 2001, Resident Geologist Program, Thunder Bay North Regional Resident Geologist Report: Thunder Bay North District	Mason, J.K., White, G.D., Scott, J.F., O'Brien, M.S., and Komar, C.	Ontario Geological Survey, Open File Report 6080, 39p., 2002
Report of Activities 2001, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District	Schnieders, B.R., Scott, J.F., Smyk, M.C., Parker, D.P., and O'Brien, M.S.	Ontario Geological Survey, Open File Report 6081, 45p., 2002.
Report of Activities 2001, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault. Ste Marie Districts	Atkinson, B.T., Hailstone, M., Seim, G. Wm, Draper, D.M., Farrow, D. and Hope, P.	Ontario Geological Survey, Open File Report 6082, 79p., 2002.
Report of Activities 2001, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake and Sudbury Districts	Meyer, G., Cosec, M., Grabowski, G.P.B., Guindon, D.L., Chaloux, E.C. and Stewart, J.M.	Ontario Geological Survey, Open File Report 6083, 94p., 2002.
Report of Activities 2001, Resident Geologist Program, Southern Ontario Regional Resident Geologist Report: Southeastern and Southwestern Districts, Mines and Minerals Information Centre and Petroleum Resources Centre	Sangster, P.J., McGuinty, W.J., Papertzian, V.C., Steele, K.G., Lee, C.R., Laidlaw, D.A., Barua, M., Carter, T.R., and Parkes, B.D.	Ontario Geological Survey, Open File Report 6084, 102p., 2002
Report of Activities 2001, Resident Geologist Program, Regional Land Use Geologist Report: Northwestern, Northeastern and Southern Ontario Regions	Debicki, R.L., Drost, A.P., Rowell, D.J., and Yule, G.R.	Ontario Geological Survey, Open File Report 6085, 17p., 2002
Industrial Mineral Assessment and Sampling of Mica in Central and Eastern Ontario	Watts, Griffis and McOuat and Ontario Geological Survey	Ontario Geological Survey, Open File Report 6086, 124p., 2002
Regional Modern Alluvium Sampling Survey of the Mattawa-Cobalt Corridor, Northeastern Ontario	Reid, J.L.	Ontario Geological Survey, Open File Report 6088, 235p., 2002
Geology of Mafic Intrusions of Flett and Angus Townships, Grenville Province	Easton, R.M.	Ontario Geological Survey, Open File Report 6090, 70p., 2002
The Physical Environment of the City of Greater Sudbury	Rousell, D.H. and Jansons, K.J. (eds.)	Ontario Geological Survey, Special Volume 6, 228p., 2002

Table 8. Mineral deposits not being mined in the Sudbury District in 2002.

Abbreviations

AF.....Assessment Files
CMH.....Canadian Mines Handbook
GR.....Geological Report
MDC.....Mineral Deposit Circular
MDIR.....Mineral Deposit Inventory record
MLS.....Mining Lands, Sudbury
MR.....Mining Recorder
NM.....The Northern Miner
OFR.....Open File Report
PC.....Personal Communication

Deposit Name/NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Angus deposit (MDIR 31L14SW00014)	Ti, Fe	141 000 000 T @34.58% Fe, 15.64% TiO_2 to 1000 feet deep	Titan Iron Mine Ltd.	AF Angus Twp.	Inactive patents
Bissett Creek deposit (MDIR 31L01SE00002)	flake graphite	26 038 000 T @ 1.86% flake graphite; 4744 000T @ 2.99% graphite	Industrial Minerals Inc.	AF Maria Twp.	Active
Brazeau Prospect (MDIR 31L02NE0010)	Va, Ti, Fe, (garnet)	110 000T @ 0.76% V_2O_3, 7.9% TiO_2, 35.2% Fe for two lenses to 100 ft.; 950 000 T for 6 lenses to 100 ft.	A. Clark	MRC 11	Inactive
Burwash Lake Prospect (MDIR 41P02SW00006)	Fe	15 possible pit areas outlined containing indicated or inferred reserves of 450,000 tons per vert. foot, aver. 20.7 % Fe. Potential tonnage est. @ 100 million tons. Preliminary concentration tests – concentrate grading 68.2% Fe, 5.0% SiO_2 with recovery of 93%	Ownership unknown	MRC 11	Inactive
Butler (Crocan Lake) prospect (MDIR 31L11SE00012)	Kyanite	50 million tons @13-17% kyanite	Kyanite Mining Corp.	AF Butler Twp.	Inactive
Butler Vermiculite deposit (MDIR 31L11SE00003)	Vermiculite	"A" zone: 144 000T @ 50-90% vermiculite	Hedman Res. Ltd.	n/a	Active
Cummings Lake Prospect (MDIR 41I16NE00036)	Fe	327.9 million tons @ 26.9% soluable Fe total	Rio Algom Ltd.	MRC 11	Inactive, underground exploration and bulk sampling
Errington/Vermilion Mines (MDIR 41I11SW00006)	Zn, Cu, Pb	4.4 million tons @ 1.3 3% Cu, 1% Pb, 4% Zn; 9 million tons @ 1.14% Cu, 1% Pb, 3.8% Zn (drilling by Falconbridge Ltd. has increased these figures)	Falconbridge Ltd.	MRC 12	Inactive, past producer
Falcon Gold (MDIR 41I10SE00003)	Au	Estimate 60 000 tons @ 0.23 oz/Au ton	Kinross Gold Corp.	E. Stringer, prospector, PC 1995	Inactive, underground development 1900s
Fostung (Texas) (MDIR 41I04NE00036)	W, Mo	F33-10 zone, 100 000 tonnes/vertical m @ 0.214% WO_4 with 81 200 tonnes/vertical m @ 0.23% WO_4 and 0.016 % MoS_2	Breakwater Resources Ltd.	Ginn, R. M. and Beechan, A. W., CIM Bulletin, V. 77, No. 863, p. 60, 1984	Inactive, extensive work by Sulpetro Minerals Limited in late 1970s, early 1980's

Deposit Name/NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Ownership References	Reserve References	Status
Geneva Lake Mine (MDIR 41I13SE00002)	Cu, Pb, Zn (Ag, Au)	170 000 T @ 11% Zn. (Small production - 80 588 tons high grade ore)	Natural Resource Holding & Consulting Inc.	Properties with Mineral Inventories, Ontario, Canada, February 1996	Inactive, past-producer 1940s
Kidd Copper (AER Nickel)	Ni, Cu, PGE	Estimated 0.5 M tons averaging 0.71% Cu, 0.62% Ni in Robinson Zone (No. 1 Shaft area); 0.275 M tons @ similar grade in Rosen Zone (No. 2 Shaft area)	Crowflight Minerals Inc.	Canadian Mines Handbook (1969-70)	Active diamond drilling
Parkin Calcite (MDIR 41I15SW00041)	$CaCO_3$	147 460 probable and possible tons of "good, fair and poor" calcite	J. Brady	AF Parkin SP025	Inactive
Spanish River Mine (MDIR 41I05SW00014)	Cu, PGE	Estimate 0.9 million tons @ 0.5% Cu + PGM	D&H Consulting Services Inc.	AF	Inactive, past-producer 1969-70. 14,500 T stockpile on surface
Stralak Deposit (MDIR 41I13SE00044)	Zn, Cu, Pb (Ag)	800 000 tons @ 4% Zn, 0.3% Cu, 0.5% Pb, 2.0 opT Ag	Stralak Resources Inc.	AF	Inactive, last active 1993, diamond drilling
Sudbury Shakespeare (MDIR 41I05SW00076)	Ni, Cu, PGE	Estimated 2.1 million tons @ 0.36% Ni, 0.42% Cu, , 0.44g/t Pd, 0.40g/t Pt, 0.22g/t Au	Falconbridge Ltd., Ursa Major Minerals Inc.	Ursa Major Min. (company report)	Active
Wikwemikong (MDIR 41H13SE00012)	dolomite	Undetermined but possibly significant	Wikwemikong Unceded Indian Reserve	n/a	Inactive, some widely spaced diamond drill holes. Feasibility and several reports

RECOMMENDATIONS FOR EXPLORATION

Platinum Group Elements (PGE), Ni, Cu

Exploration for platinum group elements has been the dominant activity in the Sudbury District for the past several years. The majority of exploration work is being conducted on differentiated mafic intrusive rocks of the 2.45 Ga East Bull Lake suite of rocks that include the River Valley, Agnew, and East Bull Lake complexes. Some work is also being carried out on 2.22 Ga Nipissing gabbro intrusive rocks, both east and west of Sudbury.

Much of this ground is held in good standing under the Mining Act as claims, leases, and patents, with a substantial amount of assessment work yet to be applied. As such, opportunities for land acquisition on ground underlain by these mafic intrusive rocks are limited. However, several marginal areas of mafic intrusive rocks may also be prospective for platinum group elements. These include, but are not necessarily restricted to the following:

1) mafic intrusive rocks north of the East Bull Lake complex in Lockeyer and Mandamin townships;
2) mafic intrusive rocks, particularly those currently considered as Nipissing gabbro west of Sudbury to Elliot Lake and hosted in Huronian Supergroup metasedimentary rocks of the Penokean Fold Belt;
3) Archean mafic intrusive rocks hosted within the Benny greenstone belt;
4) mafic intrusive complexes hosted within the Central Gneiss Belt (i.e. Whitestone, Arnstein, Eau Claire, Mattawan Township, McConkey Township);
5) areas within the Grenville Front Tectonic Zone east of the River Valley complex (Flett, Angus, and Parkman townships).

Targets to consider include known Ni-Cu occurrences, previously considered uneconomic for those metals, with emphasis on platinum group elements. There are two distinct styles of mineralization, namely:

1) disseminated magmatic sulphides, particularly within inclusion leucogabbronorite;
2) disseminated to massive, structurally controlled sulphides.

Both types are enriched in platinum, palladium, copper, nickel, and gold. However, recent work in the area suggests the magmatic sulphides are more strongly enriched in the platinum group elements.

Offset Dikes of the Sudbury Igneous Complex

Exploration activity related to the search for undiscovered Offset Dikes of the Sudbury Igneous Complex (SIC) has increased significantly following recent discoveries by Inco Limited at Kelly Lake on the Copper Cliff Offset and the Totten Mine on the Worthington Offset. Recent discoveries by FNX Mining Company Incorporated on the Parkin Offset and Tearlach Resources Limited on the Worthington Offset have fueled the search. Known Offset Dikes can extend tens of kilometers beyond the limits of the SIC margin. Prospective ground includes those areas underlain by Archean Algoman granitic and migmatitic rocks, particularly north and west of the Sudbury Igneous Complex.

Flagstone

Exploration for high-quality flagstone should be emphasized as production from one of Ontario's oldest and largest flagstone operations, the Mill Lake Stone Quarry, will be constrained in the coming years. This type of gneissic rock can be found along the Parry Sound shear zone from Parry Sound east to Huntsville. The Muskoka flagstone is in high demand and close to large markets.

OGS ACTIVITIES AND RESEARCH BY OTHERS

The geology of the Sudbury Structure, which includes the Sudbury Igneous Complex and its mineral deposits, attracts research interest world-wide, even after nearly 120 years of commercial production and countless treatises.

The recent interest in PGE over the past several years has also generated a re-evaluation of Ni-Cu-PGE occurrences, particularly in the Nipissing-Huronian Magmatic Belt (i.e., East Bull Lake, River Valley, Agnew Intrusion, and Nipissing diabase).

Some projects of interest are noted below.

R.M. Easton of the Ontario Geological Survey conducted mapping of the more deformed western sections of the River Valley intrusion. Mapping was conducted at 1:20 000 scale in area underlain by rocks of the River Valley intrusion, and at 1:50 000 scale in the remainder of the map area. This complements previous mapping on the better-preserved sections of the intrusion in Dana and Crerar townships.

D.E. Ames, I.M. Kjarsgaard, and E. Pattison conducted detailed mapping and sampling or the norite phase of the Sudbury Igneous Complex above the Creighton, Gertrude, and North Star Ni-Cu-PGE deposits. This study was completed in order to determine the distribution of halogens and alteration assemblages within an ore-bearing embayment structure. The study is part of the Sudbury Targeted Geoscience Initiative, funded in part by the Geological Survey of Canada.

A.G. Galley, D.E. Ames, and I.M Kjarsgaard studied the granophyre phase of the Sudbury Igneous Complex to record the evolution of volatiles during crystallization history of the body. Recognition of these structures through volatile concentration may be used as an indicator for PGE-enriched sulphide vein systems. This project is part of the Sudbury Targeted Geoscience Initiative.

D. Leagault, B. LaFrance, and D.E. Ames studied and mapped the geometry, composition, and spatial distribution of footwall copper-PGE occurrences in the Levack Embayment of the North Range of the Sudbury Igneous Complex. This project is part of the Sudbury Targeted Geoscience Initiative. Results will be published as a Geological Survey of Canada Open File and Current Research in 2003.

A.J. Dubois and K. Benn completed a structural analysis of the southwest part of the Sudbury Igneous Complex and adjacent footwall. This study should present identification, classification, and description of deformational events before, during, and after the formation of the Sudbury Igneous Complex (1.85 Ga).

D.E Ames, C.E.G. Farrow, I.M. Kjarsgaard, E. Pattison, I.R. Jonasson, R.A. Zierenberg, and D.H.Watkinson completed trace element studies of Ni-Cu-PGE ores of the Sudbury Igneous Complex to further elucidate ore-forming processes.

C. Vaillancourt, R.A. Sproule, C.A. MacDonald, and C.M. Lesher continued the second year of a study to develop a classification framework for mafic-ultramfic intrusions and PGE occurrences based on geochemistry of the host intrusion, mineralization styles, and tectonic setting.

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Metric Conversion Table

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 023	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
		MASS			
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 90**	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

	Multiplied by	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.